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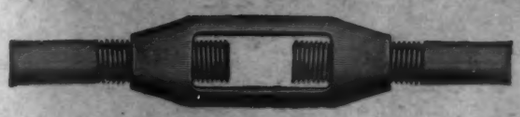
The American Artisan
AND HARDWARE RECORD

Vol. 56. No. 1 CHICAGO, OCTOBER 24, 1908. $2.00 Per Year.

TURN BUCKLES



A full line of Bolts, Bolt Ends, Rivets, Lag Screws, Nuts, Washers and Carriage Hardware.

COLUMBUS BOLT WORKS, COLUMBUS, OHIO.

GET THE LIVE LINE
"AMERICAN SEAL"
Elastic Oil Roofing Cement, Stove Putty and Asbestos Furnace Cement
For Furnaces, Stoves, Ranges and Roofs.
Jobbers write to-day for prices
THE
Wm. Connors Paint Mfg. Co.
Makers. TROY, N. Y.
Western Agents: Friedley-Voshardt Co., 194 Mather St., Chicago, Ill.
Southwestern Agents: Stockhoff Supply Co., 107 N. Main St., St. Louis, Mo.

Trying to do business without advertising is like winking at a girl in the dark: you know what you are doing but nobody else does.

WIZARD
ADJUSTABLE HINGE HANGER

Made of best quality Malleable Iron. The two sets of Steel Roller Bearings reduce friction and make an exceptionally easy running hanger. Lateral and Vertical adjustment. No special track required. *Ask your jobber or write us.*
SAFETY DOOR HANGER CO.
Manufacturers
Ashland, O., Hamilton, Ont., Can.

"NEVER-BREAK"
TRADE MARK

Catalog Free

"NEVER-BREAK"
STEEL SPIDERS, GRIDDLES AND KETTLES
WILL NOT Scale Off like cheap enamel.
WILL NOT Scorch or Burn like light fry pans and skillets.
WILL NOT Absorb Grease or Flavors like cast Iron.
THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods.

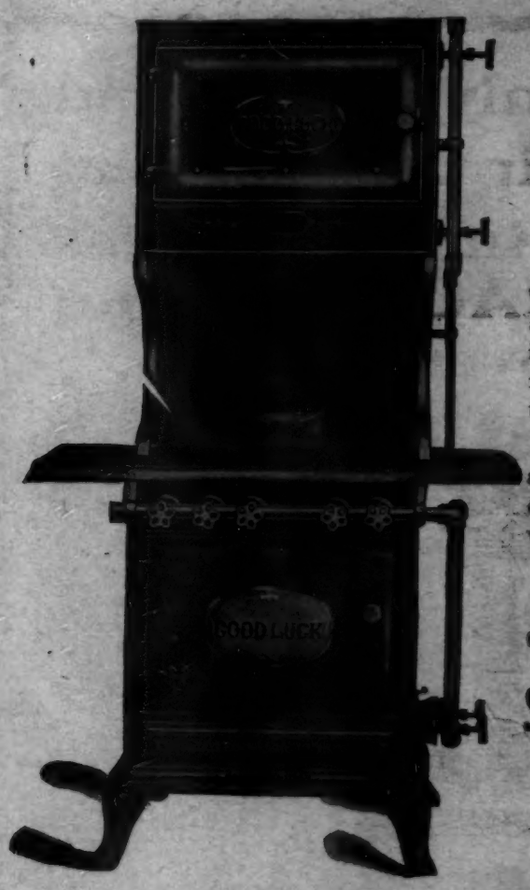
The Highest Grade File Made.
DELTA
TRADE MARK
DELTA
DELTA FILE WORKS
CARVER FILE CO.
PHILADELPHIA, PA.
An independent organization not connected with the trust in any form, shape or manner.
FILES OF QUALITY
FILES
The File You Will Eventually Use.

MATCHLESS
Spring and Pivot Hinges
Floor Hinges, Jamb Hinges and Hardware Specialties.
The fact that Matchless Spring Hinges have been on the market since 1895 and that in that time not one set has required repairs from fault of hinge speaks very well for their serviceability and wearing qualities.
If your Jobber cannot furnish them write us.
LAWSON MFG. CO.
40 Dearborn St., Chicago, Ill.

PULLMAN
SASH BALANCES

Are you selling them?
IN USE EVERYWHERE
Send us your orders
PULLMAN MFG. COMPANY
SOPHIA STREET
ROCHESTER, N. Y., U. S. A

100
Tinners' Patterns
Complete for
$1.00
Sent Postpaid on Receipt of Price
Daniel Stern
355 Dearborn Street - Chicago



Good Luck Gas Ranges

PERFECT PASTRY BAKERS

"ANGEL FOOD" EASILY AS "DEVIL CAKE" AND BISCUITS LIKE A PICTURE

To test the reliability of any Elevated Oven Gas Range, **try baking Angel Food.** This should be baked in a "moderate oven" for 40 minutes. It is very delicate and the opening and closing of the doors to "take a peep" will vibrate most elevated ovens so that delicate pastry will "fall" and then the "jig is up"—the baking is ruined.

Good Luck Elevated Ovens do not vibrate. We have another thing to tell you. A pan of biscuits placed in this oven and left without the slightest attention until baked were found perfectly uniform in crust and color.

There is a very good reason for this.

They Cook **Buckwheat Cakes and Sausage** "Behind Closed Doors"—No Smoke.

Stove & Range Co., of Pittsburgh

Pittsburgh, Pa.

Makers of

Good Values in Stoves

The 7th in a Series of Reasons Why the KELSEY is the Best Warm Air System

KELSEY Efficiency

—and what it means

It is an easy matter to claim this or that furnace has larger heating surfaces than any other furnace on the market. But it's another thing to prove it.

It's an easy matter, however, to prove KELSEY supremacy.

Take any ordinary hot air furnace, and you'll find it listed as having approximately 30 to 35 square feet of heating surface to every square foot of grate area. That's a ratio of 35 to 1—taking the manufacturer's published figures.

In the KELSEY, however, there's an average of 65 square feet of heating surface to every square foot of grate area! That's a ratio of 65 to 1.

Nearly double that of the ordinary "hot air furnace."

And we don't ask you to take our word for it—you can measure it up yourself with a tape line—and prove this fact!

With this immense amount of heating surface—double that of the ordinary furnace, it is clear to understand why the KELSEY supplies a very much larger volume of pure, warm air with the same amount of fuel—or the same amount of pure air, with very much less fuel— than any other warm air heating apparatus.

This greater efficiency in the KELSEY means that your customers will have comfortable homes on the coldest days—that their fuel expense will be smaller—that they will not have to run the KELSEY to the limit of its capacity—that their repair bills will be practically nothing.

Don't you want to know about the exclusive agency selling plan for the

KELSEY Warm Air GENERATOR

(Registered in U. S. Patent Office)

KELSEY HEATING COMPANY

SYRACUSE, N. Y.

NEW YORK, 156 Fifth Ave. CHICAGO, Van Evera & Lewis Mfg. Co., 104-106 W. Lake St.

James Smart Mfg. Co., BROCKVILLE, Ont., Sole Makers for Canada

THIS is the only right hand Reservoir that will heat the water HOT in 15 minutes WITHOUT DETRACTING from the baking of the oven.

PATENT APPLIED FOR

This reservoir holds 11 gallons, Copper tinned inside. Easily cleaned—simply remove plug from drain tube in bottom.

The Stove man that gets the Agency for this range in your town will be in a good position to control the Steel Range business.

Get ahead of your competitor by writing to-day for descriptive circular and price list.

ALLEN MFG. COMPANY

STEEL RANGE SPECIALISTS

NASHVILLE, TENN.

Distributors:
JNO. T. ALLEN & CO
Los Angeles, Cal.

Distributors:
WORMNEST STOVE & RANGE CO.
Grand Rapids, Mich.

RADIANT HOME SPECIALTIES

RADIANT HOME NEW CAST RANGE

The latest range production; and for beauty of design, quality of ornamentation, efficiency of operation, durability and economy it is unquestionably the leader of the day. It is the latest result of a half century's study and experience in range construction.

OVEN

Two sizes, 18 inch and 20 inch. Other dimensions 20½x12. Oven rack aluminized.

GRIDDLES

8 inch and 9 inch.

RANGE

With or without reservoir, with Back Guard, High Shelf or High Closet.

TOP

Key Plate Style, six griddle including one sectional. Key Plates very heavy.

GRATES

Duplex, reversible for wood, removable without disturbing any linings.

LININGS

Extra heavy cast iron and as nearly indestructible as possible.

OVEN DOOR

Drop style, nicely balanced, equipped with a reliable thermometer. Double Catch.

RESERVOIR

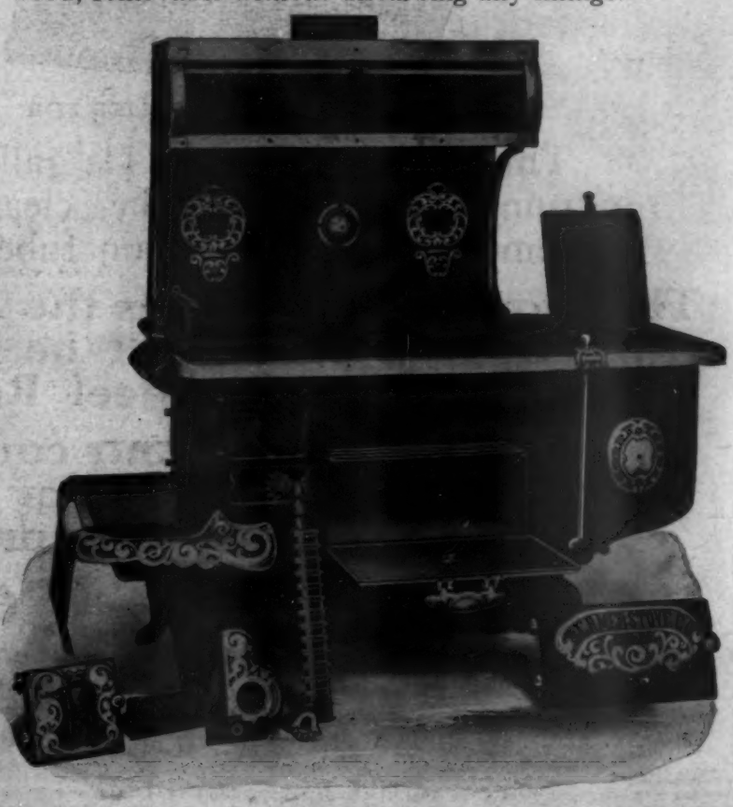
Cast iron white enameled. Japanned reservoir covers.

FLUES

Full circular, with convenient clean out.

HIGH SHELF AND CLOSET

Full width of stove, brackets of pressed steel and full depth. Balanced drop door on closet.



GERMER STOVE COMPANY

Western Branch:
231-247 Newberry Avenue
Chicago, Ill.

ERIE, PA.

The TOLEDO Stove & Range Company

TOLEDO, OHIO

Manufacturers of the

GEM

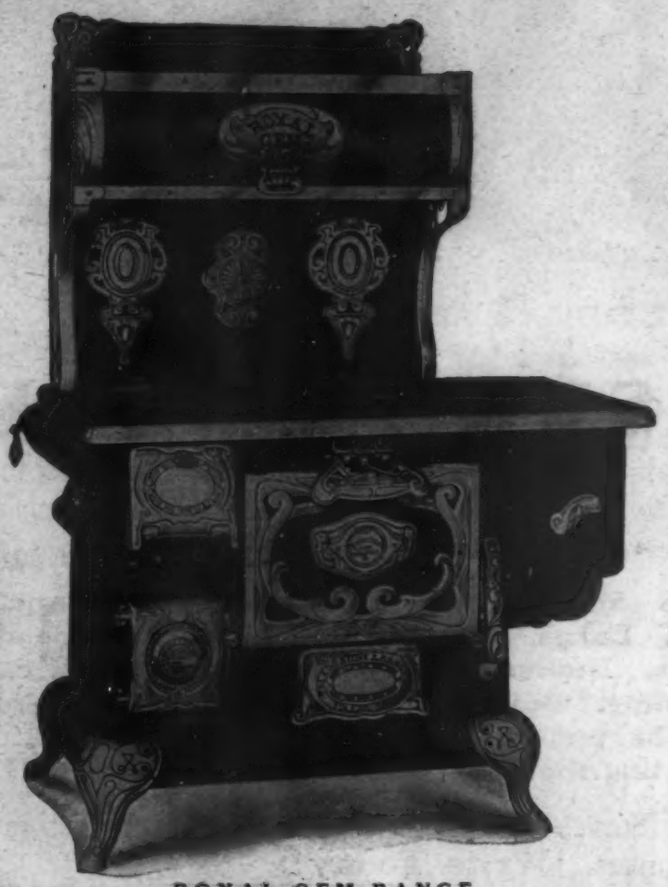
Heating Stoves and Ranges

SPARKLING GEM
BASE BURNER

RADIANT GEM
BASE BURNER

Our prices are the lowest possible for high-grade stoves

Before ordering your stoves write to us and get full information.



ROYAL GEM RANGE

We can make prompt shipments and would be pleased to hear from you, Mr. Dealer

FOSTER'S OPAL

A New Addition To Our Line

which we guarantee to be the equal of any Range (and superior to many) in construction and baking qualities.

A SURE SELLER

Just the kind of Range for which there is a demand and just the one YOU want to handle—a Range that sells at a Reasonable Price and which can be heartily recommended.

FEATURES—Six Holes on Top and the covers and centers are extra heavy. Large, Roomy Fire-Box with no dead corners to collect ashes. Duplex Grate. Reservoir made of cast iron with porcelain lining. Balanced oven door so constructed that a new spring can be put on in one minute without taking the range apart or putting the hand on inside.

Our line of Stoves and Ranges merit your investigation! They are ALL Trade Winners. **Write Today!**

THE FOSTER STOVE COMPANY, Ironton, Ohio

VAN'S

Patent Improved Wrought Steel Portable

RANGE

For Hotels, Restaurants, Public Institutions, Boarding Houses and Private Families. All kinds of Hotel Implements for culinary purposes. Manufactured and for sale by

The
JOHN VAN RANGE CO.
Southwest Corner
5th and Broadway
CINCINNATI - - OHIO

CHAMPION INTERCHANGEABLE RANGE

This is an INTERCHANGEABLE RANGE, not a combination range, nor a coal and gas range bolted together. It is something new.

You Can Change It from One Fuel to Another Instantly

This Range is bound to prove a big seller, it has so many superior features. For instance, if gas is being burned and it gives out or gets weak, in ten seconds, it can be changed to coal and the cooking can go on without interruption. **That's a Big Selling Point** which will appeal to every user of Ranges. There are others too, and they are going to create a big demand for this Range. Are you going to be able to meet the demand in your vicinity?

Better secure the agency at once. Write today.

We would be pleased to send you catalog and prices.

CHAMPION STEEL RANGE CO.
3950 W. 25th St., CLEVELAND, O.

Munsell's Mica

THE STANDARD

For High Grade Base Burners

EUGENE MUNSELL & CO., The Mica Headquarters

NEW YORK, 68 Church Street **CHICAGO, 358 Dearborn Street**

Economy Gas Heating Stoves and Ranges

Are the acknowledged leaders of the world. They are carefully made of the very highest class material, beautifully ornamented, and are quick and powerful heaters.

Material, workmanship, Style and Economy of fuel are only a few of the points where the *"Economy"* surpasses all others.

THEY DELIGHT CUSTOMERS AND ARE

BUSINESS GETTERS

Write for catalogue and prices, then secure the agency for the ORIGINAL ELEVATED OVEN Gas Range, as well as the ORIGINAL Circulating and Ventilating line of Gas Heating Stoves.

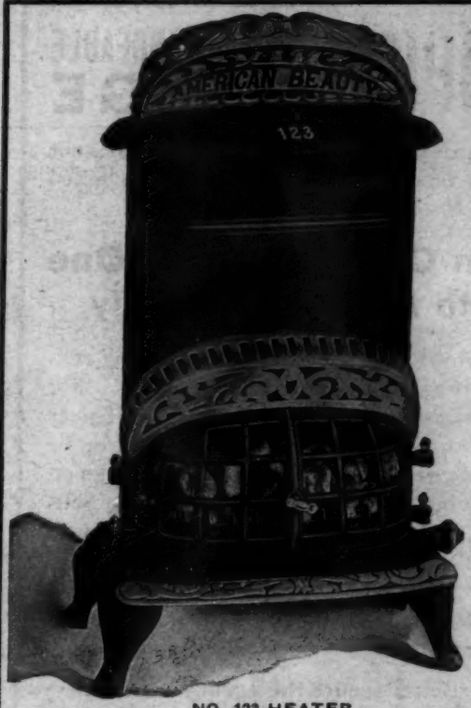
The largest line of closed front fuel stoves in the world.

We manufacture Gas Goods only and devote our entire time, energy and capital to doing it well.

Economy Stove Co., Cleveland, Ohio.

AGENCIES:

RICHARDS & CONOVER HDW. CO., Kansas City, Mo.
STEELE HDW. CO., Parsons, Kansas.
M. F. TALLMAGE, Buffalo, N. Y.



NO. 123 HEATER.

No. 140 RANGE.

Our line of heaters for both natural and artificial gas is complete. The catalogue and price list are yours for the asking, and our proposition is attractive. Get a reliable line with real "talking points."

A Customer just writes us: "We have handled the high-priced——line of gas ranges for a number of years, but for several months have been selling the "American Beauty." We find it gives even better satisfaction and costs less, consequently we are able to sell at lower prices and make a better profit."

It is on just such testimony as this that we are building up a rapidly increasing volume of trade.

WILL IT NOT PAY YOU TO INVESTIGATE?

AMERICAN BEAUTY STOVE COMPANY, Erie, Penn.

IT IS OUR AIM

QUALITY STOVES RANGES SURE TO PLEASE

to manufacture stoves and ranges of unquestioned merit and individuality.

IT SHOULD BE YOUR AIM

to always supply your customers with goods bearing just these qualities.

Quality Stoves and Ranges

lead in exclusive features, finish and beauty of design, and are guaranteed to be free from any defects and as perfect as it is possible to make them. The prices are no higher than for goods of less merit.

Write for our Catalog

Quality Stove & Range Co., Belleville, Ill.

SAVE HALF YOUR FUEL
BY USING THE
ROCHESTER RADIATOR

Satisfaction guaranteed, or money refunded Over 100,000 of them in use. Fits any stove or furnace.

We make the original and genuine Rochester Radiator.
We do not sell to Catalog Houses.

Price, from **$2.00** to **$12.00**
FOR HARD OR SOFT COAL, WOOD OR GAS.

We refer all inquiries to you from your town when you carry a stock of our Radiators.

We guarantee our Radiators not to interfere with or choke the draught.

They are easily cleaned.

Write for descriptive Catalog and Prices.

ROCHESTER RADIATOR CO., 125 Furnace St. ROCHESTER, N. Y.

Boston, Mass., S. M. Howes Co.; Detroit, Mich., Standart Bros., Ltd.; St. Paul, Minn., Farwell, Ozmun, Kirk & Co.; Omaha, Neb., Wright & Wilhelmy Co.; Sioux City, Ia., Knapp & Spencer Co.; Kansas City, Mo., The Harbison & Modica Mfg. Co.; Kingston, N. Y., Canfield Supply Co.; Portland, Ore., F. W. Isherwood, Esq.; Hamilton Ont., The D. Moore Co.

The MONITOR RADIATOR

BASE BURNER WITH FIVE FRONT FLUES

has *1683 Square Inches* more Radiating surface than any other Base Burner made.

THE BIGGEST SELLER ON THE MARKET

You should secure the Agency at once. *Write today to*

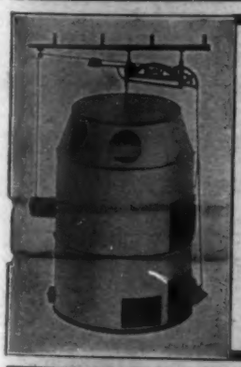
PAXTON & GALLAGHER CO., Omaha, Neb.
Exclusive Distributors for the West

THE CHAMPION
Hot Water Combination Boilers
THEY FIT ANY FURNACE

They fit close into the dome and have an open front at fire door. In small heaters base section can be used alone. One or more rings may be added for additional capacity to be determined by the amount of hot water radiation to be used. All joints absolutely tight.

WRITE FOR CATALOGUE.

FRANK D. STOLZ, Manufacturer
156 Webster Ave., CHICAGO, ILL.

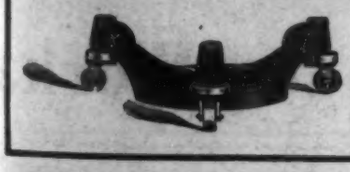


The FUEL$AVER
Will Add $75 to $750 to Your Profits

¶ It's a new automatic heat regulator for furnaces. Keeps the temperature uniform. Reduces the coal bill 25%. Low in price and pays a big profit.

¶ Write for particulars today.

F. D. KEES MFG. CO., - **Beatrice, Nebr.**



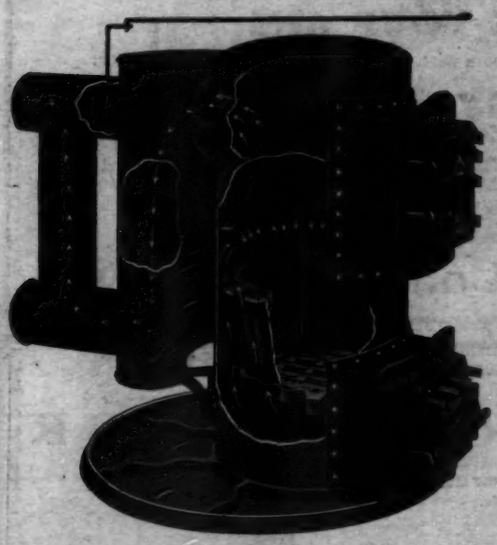
We are constantly adding to our list of customers for

Independent Stove Casters

simply because we make a better caster for less money than any other manufacturer.

Independent Register & Mfg. Co., Cleveland, O.

Don't You Believe That Your Profit in the Furnace Business Could be Increased?



How? By satisfying your customers. In what way? By giving them what they ought to have and what they want. A satisfied customer is a good advertisement.

Your customer wants a furnace:

Provided with a smoke consuming fire pot which will save fuel;
Which is absolutely gas and dust tight;
Which will not need to be repaired every little while;
Which is a good heater with a long smoke travel;
Which has the new hollow grate bars;
Which has the double doors;
Which has a deep ash pit;
Which has a water coil pocket.

In other words your customer wants a modern up-to-date furnace, heavy and durable, which can be purchased at a reasonable price.

Green's Base Heater Furnace

Is built of one piece of steel from top to bottom. The heads in both the body and radiator are riveted in with a twenty-ton press, the heated rivets are crushed becoming set and solid—a part of the steel itself.

Consequently it is absolutely gas and dust tight.

About one-third of the combustible matter in soft coal is smoke and gas which passes up the chimney, and it is a fact that if a sufficient amount of heated air is mixed with this smoke and gas it will be burned, produce intense heat, and the coal bills will be greatly reduced. The slotted fire bowl in this furnace allows the heated air (not cold air which has to be heated before it can be used) to pass into and above the fuel and mix with the smoke and gas.

Consequently it saves money by reducing coal bills.

Where brick linings are used the furnace is a heater only from the top of the linings up, as very little heat passes through the brick, but by using our slotted fire bowl (which naturally throws the heat downward) this furnace is a heater from the bottom plate to the top, every inch of it heating surface.

Consequently it has one-third more heating surface than the average furnace.

For radiation cast iron linings are very little better than brick, as the ashes have an opportunity to accummulate behind the linings, and ashes are a non-conductor of heat. Ashes burn out grate bars when allowed to pile up underneath, and in the same manner the ashes behind the linings burn out the cast linings. The bowl in this furnace is so constructed that the ashes can not accumulate behind it, the ashes are constantly working down and out.

Consequently this is the most durable fire pot used in any steel furnace today.

The grate bars are hollow. If the ashes should accumulate and burn out one side of the bar, the two upper sides or supports will prevent the bars from warping.

Double feed doors are provided, and when large chunks are to be placed upon the fire, both doors can be used.

The deep ash pit will hold a large quantity of ashes, and the danger of burning out the grates is largely reduced.

The long smoke travel through the radiator extracts the heat from the smoke before it leaves the furnace.

Give your customers what they ought to have. They will reward you by recommending the furnace, and each furnace will sell several more. This is the way to build up the business. Are you selling a furnace which has as many advantages as this one, a furnace which you can explain to your customers, and which will immediately appeal to them as the furnace best adapted to their needs? Probably not, but we will send you a catalogue telling you all about it if you will write for same.

Green Foundry & Furnace Works

Dept. "A" **Des Moines, Iowa**

The Patented Square Pot and Square Grate

Used in all Boynton Square Pot Furnaces

There are two things to be considered in our Patented Square Pot Furnaces which should certainly appeal to you. One is that it is the latest and most important improvement in the manufacture of Warm Air Furnaces and the other is its easy saleability which means more money in it for you.

Remember we make the only furnaces that have square pots permitting free combustion and rapid clearance of ashes.

Write for Descriptive Circulars.

The BOYNTON FURNACE CO.

147-149 Lake St., Chicago **207-209 Water St., New York**

100 Series Fox Furnaces

Figure up the radiation on this furnace and you will not question which is the best furnace to buy.

The tubes are cast iron, taking air at the top of the fire pot and passing the air to be heated over the top of the fire, the hottest part of the furnace.

The steel used in this furnace is 8-gauge.

The joints are all cup joints mounted with asbestos rope and Salamander cement and we warrant them to be permanently gas and dust tight.

The doors are large and well fitted.

Castings are heavy.

Fire pots straight.

Furnace is low down so you can get it in any cellar.

Use **FOX FURNACES** and you will soon have many satisfied customers and money in the bank.

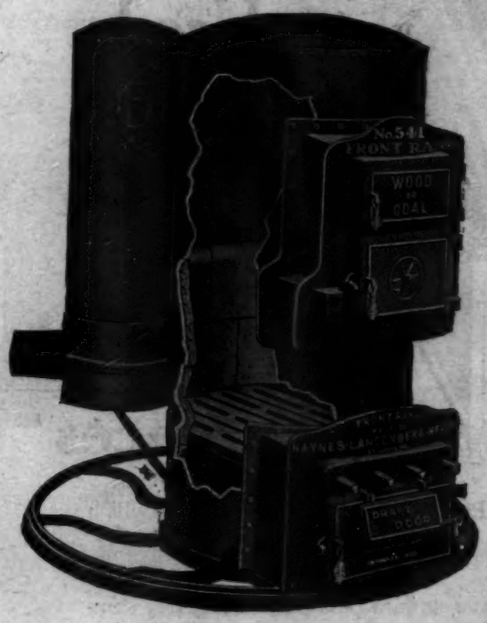
Write to-day for catalog and prices.

Western Distributors, Day K. Smith & Co., Kansas City, Mo.
Michigan Agents, The Wormnest Stove & Range Co., Grand Rapids, Mich.

The Fox Furnace Company

ELYRIA, OHIO

When The Votes Are Counted



it will be found

The People Rule

We have

Elected

to supply

The People's Choice

better than ever before, so have opened a Branch Salesroom and Stock at 211-213 Lake St., Chicago, where the trade of the West and Northwest can be better supplied with the **Best Steel Furnace** ever made.

Catalog and Printed Matter on Request

HAYNES-LANGENBERG MFG. CO.

4045-4057 Forest Park Boulevard :: :: ST. LOUIS, MO.

211-213 Lake Street, CHICAGO, ILL.

Magee Illustration No. 4

Magee Everett Furnace

The cheapest furnace on the market, and yet it has the MAGEE characteristics, quality of material and thoroughness of workmanship.

The design is simple, but nothing is omitted that tends to efficiency.

Ample ash pit—the **only** grate, the Dock-Ash. Broad dome shaped combustion chamber, and a large revertible flue radiator.

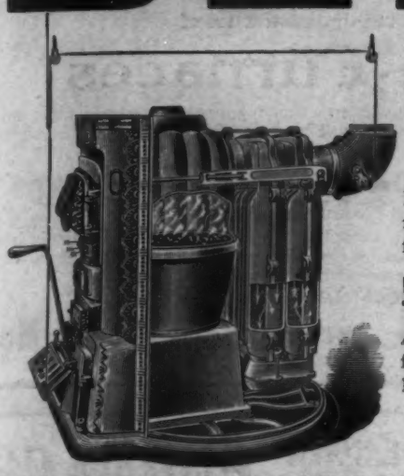
This furnace is made in **three sizes,** and the prices will astonish you.

A word to furnace men:—If the **Magee** line is not represented in your city, don't waste a minute, **write now to**

MAGEE FURNACE CO., 86 East Lake Street Chicago.

BENGAL

ALL CAST IRON FURNACE



Most Powerful and Compact Furnace Ever Produced

Burns perfectly Anthracite or Bituminous Coal or Coke. Has solid cast front and deep ash-pit.

EITHER DRAW-CENTRE, ANTI-CLINKER GRATE OR TRIPLEX GRATE which can be drawn out through ash-pit.

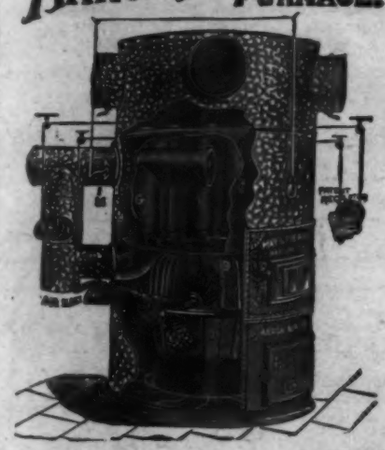
Adapted to all kinds of cellars as **they stand but 42 to 50½ inches high** from the floor to top of upper casing ring, allowing plenty of elevation for hot air pipes.

HAS MORE RADIATING SURFACE THAN ANY OTHER FURNACE OF THE SAME SIZE.

WRITE TODAY FOR COMPLETE DESCRIPTIVE MATTER.

THE FLOYD-WELLS CO., ROYERSFORD, PA. 83 Kinzie Street, CHICAGO, ILL.

AKRON AIR BLAST FURNACE.



Perfect Ventilation. Plenty of Pure, Warm Air, and Small Coal Bills

ARE ASSURED EVERY USER OF THE

AKRON AIR BLAST FURNACE

Its many distinctive features, combined with ALL the most practical features of modern Furnace Construction, have made **The Akron Air Blast** the Best Furnace on the market to-day.

Best for YOU to SELL; Best for your CUSTOMERS to BUY

A Few Selling Points:—**It is the STRONGEST and MOST DURABLE, making it the CHEAPEST. It is the EASIEST and MOST SIMPLE to Operate. Burns ANY kind of Fuel. Is CLEANEST. Has the BEST GRATE, STRONGEST FIRE POT, and the ONLY CENTER DRAFT DIVING FLUE.**

WRITE FOR CATALOG AND PRICES

THE MAY-FIEBEGER CO., Akron, Ohio

A Good Warm Air Furnace

Properly installed, will heat a house more satisfactorily and more economically than hot water, steam or stoves.

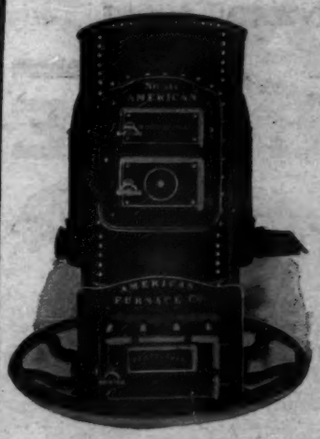
The foregoing statement can be proven if you will sell BOOMER FURNACES and get our ideas about installation.

No one has ever made any money out of light, cheap furnaces; 95% of the consumers will pay the price when value can be shown, after which, no trouble. Let your competitors have the other 5% and the trouble.

Be honest now, are you drifting into the 5% class, or are you going to handle BOOMERS? Get our attractive BOOMER proposition immediately.

The HESS-SNYDER COMPANY

Manufacturers :: MASSILLON, OHIO



Both the Dealer's and the User's Interests

Have been considered in the construction of

American Furnaces

We have made a furnace that every dealer in every community can sell and guarantee. A furnace that is built upon Hygienic and Modern Principles and bound to satisfy the user in every particular.

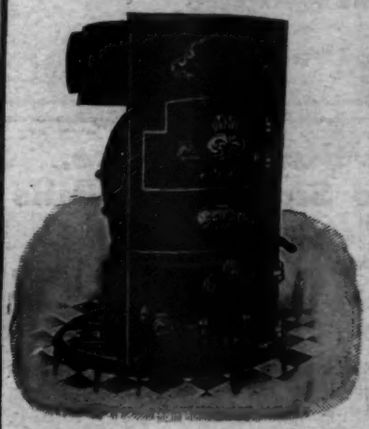
Clean and Tight Like a Boiler

—our new method of riveting makes it so.

DEALERS: A Sample Furnace will be shipped to any responsible dealer in the United States and if after careful examination (we allow you 30 days) it does not prove entirely satisfactory, it can be returned at our expense.

WRITE FOR OUR CATALOG TODAY.

The American Furnace Co., 1911-15 Pine Street St. Louis, Mo.



OUR NEW DE HAVEN ALL CAST FURNACE

Strictly Modern and Up-to-Date in Every Respect

All the latest features in modern furnace construction are embodied in the make-up of this furnace.

FEATURES: Extra Heavy; Gas Tight; Burns all grades of Hard Coal, Soft Coal and Wood; Simple and Economical to Operate; Top Return Flue Radiator; Large Radiating Surface; Roller Bar Grate.

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Youngstown Furnace & Supply Company

NILES, OHIO

Manufacturers of the Celebrated LION-APEX and BESSEMER Series of Furnaces.

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Kansas City, Mo., Southwestern Distributers

Variety—Quality—Efficiency

168 Sizes Floor Registers in five designs Vertical Wheel.
84 Sizes Floor Registers in two designs Glide Movement.
37 Sizes Convex Registers in three designs.
11 Sizes Circular Top Registers in two designs.
14 Sizes Round Registers in two designs.
42 Sizes Mouse Proof Vent Plates.
4 Sizes Convex Base Vents.
10 Sizes Special Side Wall Registers in three designs.
6 Sizes Reversible Wafers in two designs.
3 Sizes Pedestal Registers.
43 Sizes Lock Asylum Registers in two designs.
135 Sizes Wall Frames 2" and 4".

FERROSTEEL CAST—WROUGHT STEEL—MODIFIED STEEL.

Every known special and Stock Finish. Write for our Catalog and discounts.

FERROSTEEL COMPANY, Cleveland, Ohio

Simplicity, Durability, Economy and Capacity

All of which are essentials of the really Good Furnace, are featured in the

MONCRIEF

TOP RETURN FLUE WARM AIR FURNACE

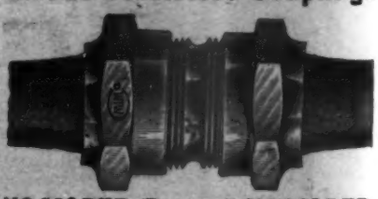
This is a furnace which is unsurpassed for operation and durability.

FEATURES: Burns all grades of hard and soft coal; all cast iron; Moncrief Duplex Grate; large radiating surface; double fire-pot; large grate surface and cleanliness in use. Write for catalogue.

Henry & Scheible Co., 825-29 Long Ave., N. W. CLEVELAND, OHIO

J. C. KIMMEL, 2514 E. 15th St., Kansas City, Mo., Western Sales Agent

Mimco Solderless Couplings



NO SOLDER (Patented) NO SOLDER

Do away entirely with wiping joints. A practical article and BIG SELLER.

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MODERN IMPROVEMENTS MFG. CO.

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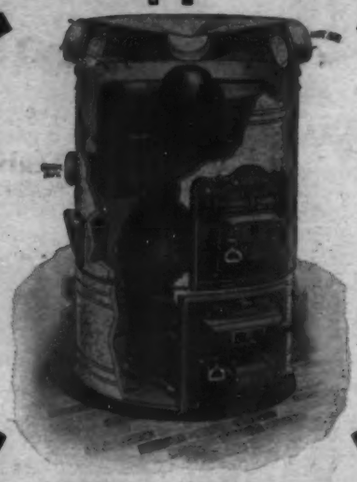
THE AMERICAN ARTISAN Keeps You Posted.

GILT EDGE ALL CAST FURNACE

THIS IS IT



DURABLE

Heavy wearing parts.
Two-piece fire-pots.
Gas-tight joints.

POWERFUL

Built on GILT-EDGE principles, which 30 years use have proved correct.

ECONOMICAL

Has a radiator twice as large as on other cast furnaces.

Catalog Free

A MONEY MAKER

Sold so you can make a good profit on it.

A GOOD SELLER

Has points of merit over all competitors regardless of prices.

A GOOD AD-

vertisement to have the GILT-EDGE on your floor or in your customers' homes.

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GILT EDGE FURNACES FOR ALL FUELS

R. J. SCHWAB & SONS CO., Milwaukee, Wis.

CELLULAR OVERDRAFT FIREPOT

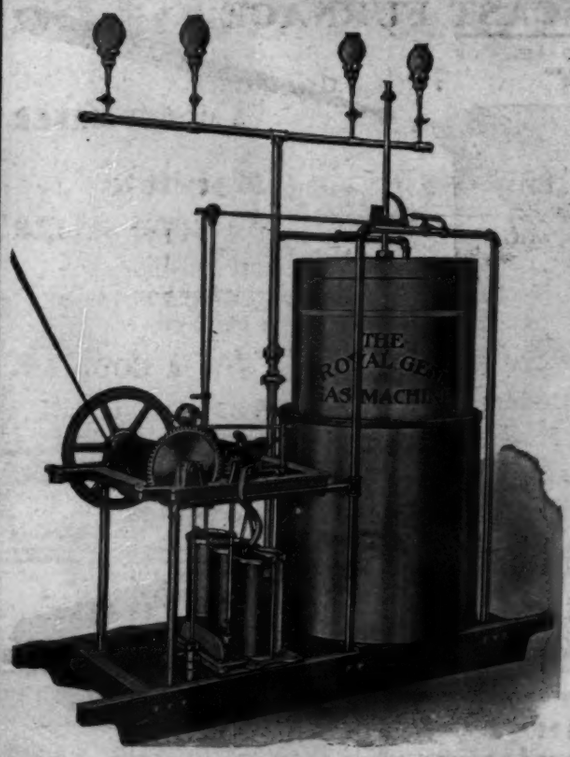
Found Only in Our Furnaces

THE BONNOT COMPANY ∴ CANTON, OHIO

We Guarantee to Please

Shipped on 30 Days Trial

"Ability is of little account without opportunity," said Napoleon I. Advertising supplies or creates the opportunity.



The "Royal Gem Gas Machine"

THIS machine embodies every requirement of a good gasoline gas generator. It produces a nice, even quality of gas, regardless of the number of lights burning. It is easily controlled by adjusting the stroke of the gasoline injector.

An important feature of a gas producer is the pressure. The brilliancy of a gas light depends on the pressure as much as the quality of gas. Results from tests prove that high pressure consumes 50% less gas than a low pressure, to get the same quality of light. The "Royal Gem Gas Machine" will produce *any desired pressure.*

This feature makes it the most *economical* gas producing machine made. It is simple, safe, durable. Comes all set up ready to connect to the pipe and storage tank. Does not require a special burner or mantle. Has no complicated mixer to adjust—nothing to get out of order. It is having a very large sale.

Sent on 30 days trial to responsible parties.

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WHEN YOU SELL A CUSTOMER MAKE HIM A PERMANENT ONE

HOW? Sell him an article of Quality—one that will satisfy and please him — one he will tell his friends and neighbors about, not only tell them about it, but also tell them where he bought it.
"MUELLER" Furnaces never fail to make permanent customers.

Dealers can readily explain to their customers why the "MUELLER" costs more than a cheaper heater; can also show where the customer gets his money's worth for the higher price he pays.

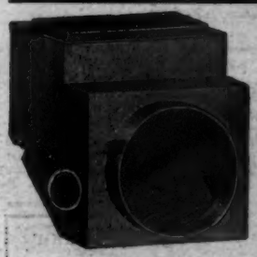
The "MUELLER" is the heater with a reputation—52,000 in use—known in all parts of the country.

Would you like the Agency? It's for you to say.

L. J. MUELLER FURNACE COMPANY

ESTABLISHED 1857

191 REED STREET MILWAUKEE, WIS.

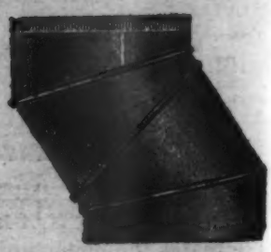


The MICHIGAN SAFETY FURNACE PIPE COMPANY

Corner Brooklyn and Abbott Streets,
DETROIT, MICHIGAN.

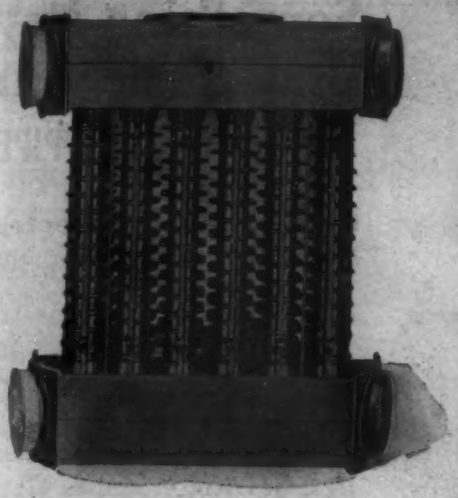
Manufacturers of A PERFECT HOT AIR FURNACE PIPE, SAFETY WALL PIPE, SINGLE PIPE and FITTINGS in both Tin and Galvanized Iron.

WRITE FOR OUR LATEST CATALOG.



We Make the Only Sectional Furnace Pipe in which the Inner Walls Form the Cross Walls.

No Wings to Pull Out. **No Cleats to Bend.**



Radiating Manifold
Note the Radiating Surface.

Forbes Furnace

1908 Addition

Particular Attention is called to our

New Radiating Manifold

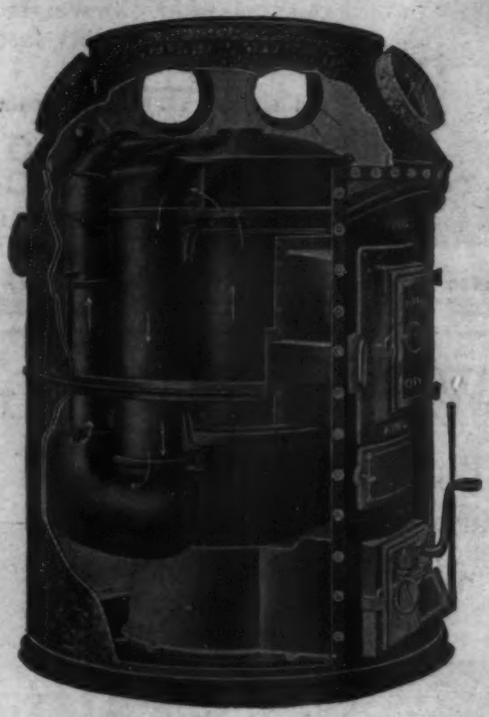
Made Exclusively of Cast Iron. No Joints in Flues. Therefore Absolutely Gas Tight.

The Forbes Furnace burns either Hard or Soft Coal and is Fully Guaranteed in Every Case.

Write for our Booklet.

Ask for our Agency Proposition.

Tubular Heating & Ventilating Co.
228 Quarry St., Philadelphia



One of the many styles in which

Floral City Furnaces

are made

Write for catalogue and prices. We can interest you.

Monroe Foundry & Furnace Co.
Monroe, Mich.

We Want

Every Hardware Dealer, Plumber and Heating Contractor to know about the Money-Making Possibilities of the Klymax

Mercury Heat Economizer

This device is one of the most successful on the market. It will greatly improve any Hot Water Heating System —old or new, in city or country.

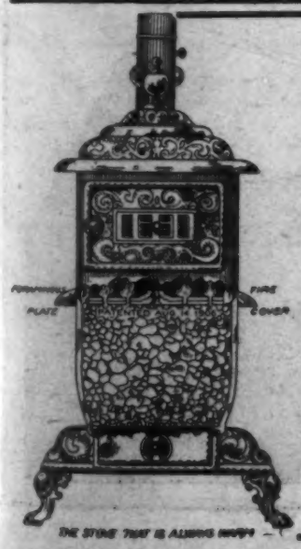
It increases the circulation and **gives more heat with less fuel.**

You can increase your sales and profits by using these economizers.

Our plan will interest you.

Write us to-day.

Kellogg-Mackay-Cameron Co.
Boilers and Radiators
CHICAGO
MINNEAPOLIS SEATTLE



The Foraminous Fire Plate Cover

Distributes the oxygen uniformly throughout the fuel bed and controls, promotes and improves combustion, causing soft coal to generate gas which lights and burns in blue or crimson flame jets above the Fire Plate.

Guaranteed to make a heating stove with an 18-inch fire bowl heat four 16-foot rooms.

Write for descriptive circular and prices. Manufactured and for sale by

P. J. MOONEY, Patentee, BRAZIL, IND.

There must be a damper in the stove pipe.

CUT THIS OUT

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355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

Name .....
Address .....
Town ..... State .....

The Pipe Before It Is Locked

The Pipe After It Is Locked

50 Feet of Pipe Nested for Shipment

Something New Under The Sun

NESTED HOT-AIR PIPE

(Patent Pending)

Great Saving Effected:

IN SPACE (occupies 1-25th that of ordinary Pipe).

IN WEIGHT (no huge, heavy crates needed).

IN FREIGHT (†ships as 4th class in less than carlots; 5th class in carlots).

† Western Classification. Eastern Classification Pending.

IN CARTAGE (requires little room and is easy to handle).

IN LOSS (no damage in transit or handling).

IN LABOR (goes together without tools of any kind and can be installed on job faster than ordinary pipe).

Send for Catalog and Prices to the Makers.

The EXCELSIOR Steel Furnace Co.

36 West Monroe St., CHICAGO

Also, FURNACES, REGISTERS, STOVE PIPE AND ELBOWS.

Constructed Without Solder

All our Round Pipe and Elbows are seamed. No solder is used in their construction. We also carry complete lines of

Everything Needed For Setting Hot Air Furnaces

Including the celebrated

HANDY FURNACE PIPE

We want your business and are able to take care of it. All orders are filled promptly, due to our unsurpassed shipping facilities. Write today for our catalog.

F. Meyer & Bro. Co.

PEORIA, ILL.

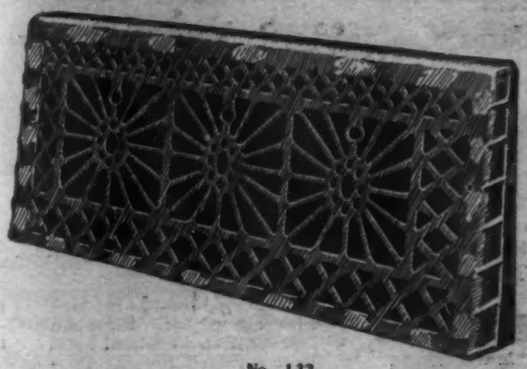
The Jones Side-Wall Registers

Are used in connection with

THE JONES SYSTEM OF HEATING

by more than **6000** of the leading furnace dealers in the United States and Canada.

THE NEW JONES SIDEWALL COLD AIR FACE



No. 132

Dimensions 14 in. high by 22 in. long. Air opening 286 square inches.
LIST PRICE
Black Japan $7.00; Electro plated, Ox. Copper, Brass or Nickel...$11.00

No. 115, Dimensions 14 in. high by 16 in. long. Air opening 154 sq. inches.
LIST PRICE
Black Japan $3.00; Electro plated, Ox. Copper, Brass or Nickel...$4.50

No. 114½ is the same design as No. 115. Dimensions 14 in. high by 11½ in. long. Air opening 113 square inches.
LIST PRICE
Black Japan $2.75; Electro plated, Ox. Copper or Nickel.....$4.00

No. 15 JONES REGISTER

For first floor rooms. Bottom Collar, 7x13½
These registers are fitted with a top collar which fits 3½x12 Wall pipe, where two rooms, one above the other are to be heated or a plate when used for heating one room on the first floor.

No. 114 Dimensions 14 in. high by 16 in. long. Air opening 129 sq. inches. This face does not extend from the wall at the bottom as much as does the 132, 115 or 114½.
LIST PRICE
Black Japan $2.75; Electro plated, Ox. Copper, Brass or Nickel...$4.00

No. 113 same design as No. 114. Dimensions 12½ in. high by 14 in. long. Air opening 80 square inches.
LIST PRICE
Black Japan $2.50; Electro plated, Ox. Copper, Brass or Nickel...$3.50

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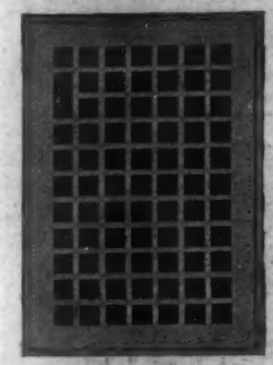
THE UNITED STATES REGISTER CO., Ltd., BATTLE CREEK, MICH.

OR TO BRANCHES: THE UNITED STATES REGISTER CO., Ltd., 104 Second St., North, Minneapolis, Minn.
THE UNITED STATES REGISTER CO., Ltd., 517 West 5th Street, Kansas City, Mo.
THE JONES REGISTER CO., 732 King Street West, Toronto, Ont.

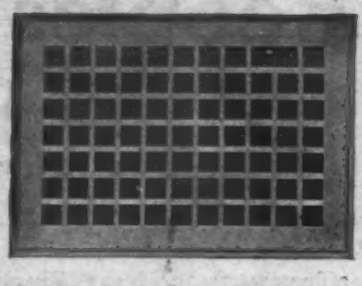
WAFER REGISTERS



"As Thin as a Wafer"

Why carry two styles of Wafer Registers in stock (vertical and horizontal) when our Reversible Register sets either way?

SIZES:
8x10, 8x12, 9x12, 10x12, 10x14

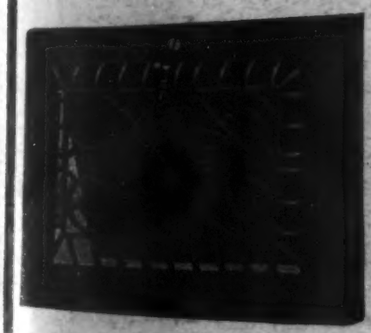


TUTTLE & BAILEY MANUFACTURING COMPANY

NEW YORK CHICAGO BOSTON BROOKLYN

Walworth Deflecting Wall Registers

FOR BASEBOARDS



Can be used on a "Double Head."

This register takes the place of the convex, and costs less money.

It takes up no room in the wall pipe, has a face of large open area, is made in standard sizes, fits regular stock sizes of fittings, is equipped with a wall frame and is attached to the pipe in the same manner as the ordinary valve register.

Our registers are made in **THREE STYLES**, Vertical, Horizontal, and Baseboard. We are also makers of the famous **SEMI-STEEL** Floor and Convex Register, all sizes and finish.

Let us quote you prices.

The Walworth Run Foundry Co.

2485 WEST 27TH STREET, CLEVELAND, OHIO.

FOR SIDE WALL

Supreme Gold Coin

CAST RANGE

Burns Coal and Wood or Wood Only

This is an entirely new one for 1908 and a more desirable six-hole, family sized range is not made.

The ornamentation is particularly attractive. The Fire Box is large and can be fitted with our flat draw center or duplex grate. The combustion is perfect, due to faultless construction. The linings are heavy and well ventilated. The oven is large and square.

Other Features: Large tops with cut plates. Strapped and ventilated centers. Solid Boston ringed covers. Spacious oval fire box. And finally a very attractive feature and one that the housewife will appreciate when she cleans the range—the nickel top band, nickel oven door shelf and the nickel wings on hearth are fastened on the range without the use of a bolt or a screw. They can be removed by simply lifting them off.

Dealers have never before been offered the opportunityof handling a range with so many attractive features.

It is made just right and the price is just right.

Peoples Gold Coin

OAK STOVE

Burns Coal, Wood or Lignite

Another new one for 1908 and about the handsomest Oak Stove on the market.

Here is an Oak that is bound to prove a big seller, it has a fine appearance, is carefully and honestly made, and sells at a moderate price. The nickel ornamentation is of artistic design and superior in quality and finish. The drum is made from heavy cold rolled polished steel. The Fire Pot is corrugated and is furnished with our draw center grate for burning coal. The Ash Pit is large and has a bailed ash pan.

Besides these, other features are: A large Feed Door, fitted with a screw draft damper. The Ash Pit door is fitted with our improved screw draft, which gives, in connection with the screw damper in the feed door, perfect control of the fire. The stove sets on a massive nickel base.

Like the **Supreme Gold Coin Range,** the **Peoples Gold Coin Oak,** offers an exceptional opportunity to dealers.

Its appearance, construction and price will make it a big seller.

OUR DESCRIPTIVE MATTER AND PRICES ARE VERY ATTRACTIVE. WRITE TO-DAY.

Chicago Stove Works

Blue Island Avenue and 22nd Street, :: CHICAGO, ILL.

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

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DANIEL STERN, PUBLISHER AND PROPRIETOR,
355 DEARBORN STREET, CHICAGO, ILL.

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, OCTOBER 24, 1908.

THE PUBLISHER IS PLEASED TO ANNOUNCE THAT THE AMERICAN ARTISAN WILL BE SENT FREE OF CHARGE FOR THE REMAINDER OF 1908 TO NEW SUBSCRIBERS FOR THE YEAR 1909. YEARLY SUBSCRIPTIONS SENT NOW WILL BE CREDITED TO THE END OF 1909.

COMMERCIAL failures last week in the United States, as reported by R. G. Dun & Co., were 269, against 256 the preceding week and 228 the corresponding week last year. Failures in Canada numbered 27, against 26 the preceding week and 45 last year. Of failures last week in the United States, 95 were in the east, 76 south and 65 west, and 33 in the Pacific states, and 87 reported liabilities of $5,000 or more, against 95 the previous week. Liabilities of commercial failures thus far reported for October are $5,632,672, against $6,285,774 for the same period last year.

THE world's production of graphite for 1908 is estimated at 100,922 short tons, valued at $3,063,386, less than the two previous years, says a report of the Geological Survey. Although most of the graphite producers of the United States reported a better demand for refined graphite, the output of flake graphite in the United States showed a considerable decrease, and the value of the total production was the smallest since 1903. Graphite was produced in Alabama, Alaska, Colorado, Georgia, Michigan, Nevada, New Jersey, New York, Pennsylvania and Wisconsin.

The Trade Outlook.

THE National Association of Manufacturers, through its organ *American Industries*, has just completed a canvass of its 3,000 members throughout the United States in nearly every line of trade, in order to ascertain the country's commercial status twelve months after the panic. The canvass was made by means of letters sent out two or three weeks ago. Four questions were asked of the members, relating to the exact condition of trade at the present time, the percentage of increase in business in the last ten months, the possibilities for future improvement and any suggestion which might serve to ameliorate conditions. The industries allied with the National Association of Manufacturers are: Iron and steel, machinery, tools and hardware, agricultural implements, vehicles, textiles, leather, food products, cement and clay products, etc.

The returns from the canvass show that the present conditions of trade in the majority of industries are fair, and that the possibilities for an increase during the coming year are very bright. Agricultural implements show the largest percentage of increase and vehicles the lowest. The steel trade makes a distinctly encouraging report, as 70 per cent of the iron and steel plants in the association report conditions good, 78 per cent have had an increase during the last ten months and 85 per cent have reasons to believe that prospects for the immediate future are reassuring. Machinery, including all classes throughout the country, shows that 68 per cent of the machinery manufacturers have had an increase since January 1 last. In food products, 89 per cent report business good, 94 per cent have had an increase, and all are optimistic for the future. Lumbermen report 85 per cent good, and 80 per cent have had an increase, while 93 per cent of them are hopeful for the future. In the tool and hardware trade 77 per cent report business good, 87 per cent have had an increase, while 92 per cent are optimistic. There are fewer idle persons in the United States now than at any previous time since the beginning of the depression last November. The outlook for the coming year is, to say the least, very encouraging.

Accept New Bill of Lading.

SHIPPERS in official classification territory, which embraces the states north of the Ohio and east of the Mississippi, are being formally notified that the new standard bill of lading recommended by the Interstate Commerce Commission will become effective November 1. In this notice is the announcement that if shippers do not like the contract contained in the uniform bill property will be accepted at carrier's liability for an additional charge of 10 per cent. While the uniform bill provides that the railroads shall assume common law liability for shipments, there are a number of exceptions which have aroused protests from a great many commercial organizations.

The new rule, as announced by the official classification roads, is as follows:

> If the shipper elects not to accept the conditions of the new uniform bill of lading, the property so carried will be at carrier's liability, limited only as provided by common law and by laws of the United States, and of several States, in so far as they are not inconsistent with such common carrier's liability, and the charge therefor will be 10 per cent higher than the rate charged for property shipped subject to all the terms and conditions of the uniform bill of lading and shipper's order.

Shippers have had numerous disputes with the railroads on the liability question, and the announcement

of the official classification roads may lead to further difficulty. It was formerly customary to charge an additional 20 per cent when the carrier assumed liability, but the Interstate Commerce Commission put an end to this by ruling that shippers have a right to unrestricted liability. The carriers in western classification territory recently abolished the 20 per cent rule and substituted a rule that they will transport property subject to common law and statute liability. Most of the western roads will not adopt the uniform bill of lading, but have provided forms which are more acceptable to shippers.

Many commercial organizations have taken a stand against the uniform bill of lading and have urged their members to use other forms when offering shipments to railroads. The National Industrial Traffic League, which includes commercial bodies in all parts of the country, has drawn up a simple form which it has recommended for transportation of property "in accordance with the provisions of law and the terms of this bill of lading."

In recommending this simple form the National Industrial Traffic League states that it is of the belief that the proposed bill of lading is in restriction of the statute and common law rights of both shippers and carriers. It maintains that only a plain bill of lading, subject to statute and common law liability, shall be used until Congress legislates on the subject.

One objection to the uniform bill of lading proposed by the Interstate Commerce Commission is that it provides that a carrier shall not be liable if a claim for loss or damage is not filed within four months. It is asserted that this conflicts with national and state laws which allow several years to elapse before a claim is outlawed or barred.

Among the objections made by grain men is one that the railway company is relieved from liability for loss or difference in the weights of grain or seeds caused by natural shrinkage or discrepancy in elevator weights.

The uniform bill is acceptable to the American Bankers' Association, which desired that greater protection should be afforded bankers who make loans on bills of lading.

The Interstate Commerce Commission, while it has no power to require the adoption of the bill, has been especially anxious that it be given a thorough test so that any defects may be discovered and eliminated before Congress undertakes to compel the use of a uniform bill. Time will tell whether the bill in its present form will work satisfactorily.

The World's Unemployed.

The Bureau of Labor, Washington, D. C., has recently issued a bulletin relative to European methods in caring for the unemployed. The field covered is Great Britain, Germany, Austria, Switzerland and France. The methods, as the most effective are considered, are resolved chiefly to two—the public employment bureau and the colonization plan which turns the unemployed back to the land. Except for the public employment bureau and the scheme which has in view the placing of unemployed men on idle land, all other European movements for the relief of the man who cannot find work sufficient to his support, smacks of mere charity. But these two, according to the report in discussion, are doing effective work and on a basis that promotes the independence and self-respect of the beneficiary. There may be those who think it insignificant as to what European countries do toward the relief of idle workingmen; but it is significant, and is becoming the more significant as the years pass.

In every country there is differentiated a rapidly growing class of dependent labor—a hand-to-mouth class that sails high upon a flood tide of prosperity, but is left as drift-wood when the tide recedes. We have known of its presence more intensively in this country than at the present time, but notwithstanding some ten years of unexampled prosperity we saw last fall, with just one slight financial jar, how helpless became this army of dependent workers. Improvident, we may term them, and improvident, no doubt, many of them are, but we do not rid ourselves of the problem they present by thus designating them. Nor as we progress, will that problem become the less complex by thoughtlessness and apathy.

Of course, it savors of paternalism to speak of governmental supervision of the wage-earning fortunes of men, but most of the problems of the time have that same color of paternalism, when anything like an effective solution is suggested. It is properly the business of constructive political economy that some plan should be devised which will tend to lead the working man to the land, where he is apt, more than elsewhere, to become a self-supporting factor. How this may be done we would not venture to suggest, but that in wisdom it should be done, we are convinced.

American consular reports furnish interesting details of the plan recently adopted in Strassburg, Germany, to insure workingmen against idleness. The city of Strassburg, in order to minimize unemployment as much as possible, has offered to give an extra allowance of 50 per cent in addition to that which any industrial society in the city may contribute to its members out of work. Twenty different industrial societies, or trades unions, comprising a membership of about 25 per cent of the workingmen of Strassburg, applied to the city for this benefit. Twelve of them were granted it, but eight were refused on account of their prosperous condition. The city was called upon to pay $452 in 1907, while industrial societies paid $1,904 to their members for insurance. The apparent inconsistency of the city's not paying $952—50 per cent of the sum paid out by the societies—is explained by the fact that all the idle workingmen did not comply with the city's regulations, the two chief reasons being a residence of less than one year in the city and the workingman's failure to report regularly at the city's employment bureau.

This is only a beginning, and the plan will probably reach in the end all workingmen in Strassburg and render unemployment there much less distressing than it has been. Other German cities are about to adopt similar plans. Germany may have an autocratic, paternalistic government, but it seems to work for the benefit of those who need its aid.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

The 900,000th patent from the United States patent office was issued on October 5 and to it was attached the name of Patent Commissioner Moore. The patent was an improvement on traveling stairs, such as are frequently seen in hotels and large stores. While Mr. Moore ordinarily attaches only his surname with his initials to a patent, he signalized the attainment of the 900,000th by using his full name—Edward Bruce Moore. In the early history of the nation the law required that patents should be signed by the president, and as the first one was issued during the first presidential administration it was signed by President Washington. I am informed that it covered a device for making pearl ashes. By the year 1911 Mr. Moore estimates that the 1,000,000th patent will have been issued. As going to show the inventive tendency of the American mind, as compared with other countries, notwithstanding that the United States is among the newest of nations, the total number of patents issued by the United States is not very far below the total for all other countries for all time, the issuance of foreign patents up to the date of last reports having been 1,135,000, or only 235,000 in excess of the total for this country.

* * *

I haven't heard of a patent having been granted on the new "automobile" type of lawn mower that certain lawn mower manufacturers are experimenting with, though I presume there has been. One of these "monstrosities," I am informed, created an awful lot of excitement a week or two ago down near Tarrytown, N. Y. It belonged to John D. Rockefeller. The gasoline tank exploded and it was destroyed. The trouble did not end here, however, for the fire spread to a house nearby and burned it to the ground. The "chauffeur" of the mower was badly cut about the head by reason of the explosion and had to be treated by a doctor. Great excitement was caused on the Rockefeller estate, and it was with difficulty that the fire was prevented from spreading to the large Rockefeller stables. It would appear to me that there is lots of scope for patented safety improvements on the new type of lawn mower. For my part I would almost as soon take a chance in an airship as to guide one of those things on a lawn, even if it were on John D.'s estate. The old reliable gasolineless lawn mower still looks good to me. It cuts the grass on my little plot close enough to suit my purpose.

* * *

Mrs. Mary Wonderlich of Coalburg, Ohio, will probably quit making doughnuts, for she is said to be in a serious condition from injuries caused by the explosion of one of these gastronomic delicacies. Just what caused the explosion has not been determined, though it has been suggested that Mrs. Wonderlich did not make the hole in the doughnut big enough to accommodate the air the dough surrounded. I know that some of my friends will be inclined to question the veracity of this story, but I am reliably informed that the doughnut exploded, not even the hole remaining. Perhaps from some unknown cause a piece of dynamite found its way into the dough, though I am hardly inclined to think so, seeing that the Fourth of July is so far away.

* * *

Thomas F. Davis, a New York roofing contractor, upon receiving a letter the other day at his home, 217 Congress street, Brooklyn, made a hurried trip to Manhattan, turning over in his mind the prospects of fat profits from a very promising bid for work made in the letter. When he arrived at an office in a downtown building he asked if he could see the bidder whose name was signed to the letter.

"I'm darned if I know how you can," said a clerk.

"How's that?" asked Mr. Davis.

"Why, your man has been dead fourteen years," was the reply.

Inspection of the envelope showed the letter had been mailed August 6, 1894. It bore inscriptions by the postal officials saying that it had been received unsealed and in bad condition. Mr. Davis was unable to learn at the Brooklyn postoffice why or where the missive had been taking its Rip Van Winkle sleep.

* * *

A queer story comes from Ohio at a blast furnace plant located in a local option community, where the liquor traffic has been put out of business. All the laborers and some of the skilled workmen deserted the town, I am told, because they could not get beer to drink, and the plant practically had to be banked. The company operating the plant alleges they cannot get laborers to take the place of the workmen who quit, and the property owners and business men of the town are finding fault with them for shutting off production. I don't imagine that this will be joyous news to my friends, the prohibitionists, though I can readily imagine that they would wax exultant had matters been reversed and the workmen left the place because there was nothing but beer to drink.

* * *

This is the view that the poet of the *Birmingham* (Ala.) *Age-Herald* takes of life. I do not think, with all due credit to the poetic ability of the *Age-Herald* man, that the poem is calculated to act as a stimulus to the log cabin boy to work his way up to the White House.

A SUMMARY.

At best, 'tis but a little while
We have to play the game;
If fortunes frown or fortunes smile,
'Twill soon be quite the same.

A grassy plot of earth somewhere
Is all we'll ever get;
And though your burden's hard to bear,
It does no good to fret.

The world goes rolling on and on
Through swiftly flying years,
Nor ever stopped for millions gone
Who drenched it with their tears.

* * *

PAPA AND HIS SAFETY RAZOR.

"Won't you take a chair, Mr. Simpson?" said the little girl to the caller. "Papa will be down just as soon as he has finished hoeing his face."

News Siftings

The Baker-Leonard Stove Co. is a new concern, which has started to make stoves and ranges at Taunton, Mass. Their foundry will be located at Weir Junction. The members of this new firm are old experienced stove manufacturers who have been identified with the stove industry of Taunton for a number of years.

The Thos. White Stove Co., Quincy, Ill., report that the demand for White's "Poplar" and White's "Nectar" stoves is constantly increasing. The company states that both these stoves possess unsurpassed heating qualities, hence their popularity. These stoves are very attractive in appearance and are constructed on scientific principles. Dealers who may be looking for a stove that is guaranteed to prove a ready seller should not fail to correspond with the Thos. White Stove Co. When writing them kindly mention THE AMERICAN ARTISAN.

The Ohio Stove Co., Portsmouth, O., report that they are having an unsually good fall's business, and that the sales of their stoves and ranges so far exceeds anything that they had anticipated, with prospects still brighter for the immediate future. The Ohio Stove Co. is one of the oldest stove manufacturing concerns in the Buckeye state, and their stoves and ranges have for many years enjoyed an enviable reputation among the trade. The business is now conducted under entirely new management and satisfaction is guaranteed. When writing the Ohio Stove Co. kindly mention THE AMERICAN ARTISAN.

F. M. Borden & Bro., 118-122 North Second street, Philadelphia, Pa., are distributing a booklet illustrating and describing "Active Fortune" and "Gem Fortune" ranges, and "Specialty," "Fortune B" and "Active Fortune" furnaces, manufactured by Thomas, Roberts, Stevenson Co., Philadelphia, Pa. The many special features of "Active Fortune" ranges are enumerated, and some valuable information is given in the booklet on how to select a furnace. and where to place it after the selection has been made. F. M. Borden & Bro. are now prepared to quote prices on the aforementioned ranges and furnaces of Thomas, Roberts, Stevenson Co. They say that prices will be the same as the foundry, with terms and delivery on the same basis.

BORN'S NEW AIR BLAST HEATER.

Born's new air blast heater, manufactured by the Born Steel Range Co., Cleveland, O., is, according to the makers, a combination of high-class designing, skillful workmanship and clever ideas in which no good feature is lacking. This heater is said to be of such a construction that coke and gases are turned into heat and air is burned like fuel. It is attractive in design and finish and is made in seven sizes, with 12 to 21-inch fire-pots. It has an extra deep air-cell fire-pot, the hot-blast ring connecting with the top of each air-cell. The ash-pit is extra large and is guaranteed to be dust-tight, the ash-pan being 4½ inches deep. Born's new air blast heater is provided with a wide deflector ring for forcing the heat down to the floor. The Born Steel Range Co. says that it is a stove of to-day, standing for comfort with economy, and elegance without sacrifice of utility. The Born Steel Range Co. has recently issued a catalogue in which this stove, together with the company's complete line, is fully described. When writing for it, kindly mention THE AMERICAN ARTISAN.

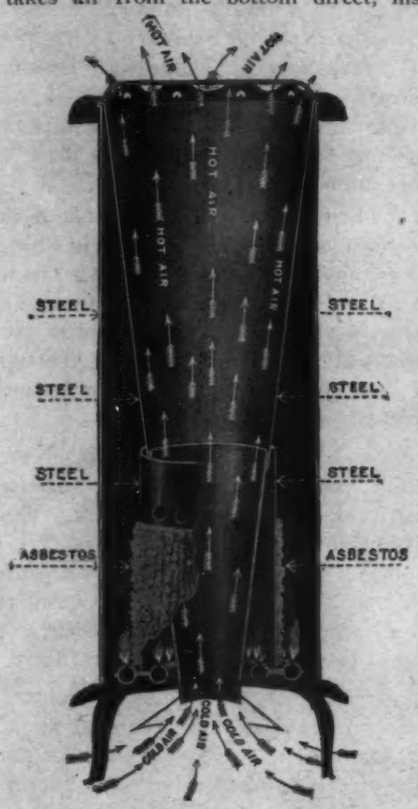
HEATER CATALOGUE OF AMERICAN BEAUTY STOVE CO.

The American Beauty Stove Co., Erie Pa., manufacturers of the celebrated "American Beauty" line of gas ranges, cookers and hot plates, have recently issued Catalogue No. 16 which treats of "American Beauty" heaters. In it the company make mention of the fact that they have made recent enlargements and improvements to their plant, that they have installed much modern machinery, and that they are now prepared to handle from two to three times the business that they had been doing, and to give their customers prompt service. They say that the enviable reputation achieved by their heaters in the past will be still further enhanced by numbers of improvements which have been made in their construction and design. In addition they have recently added six new heaters to their already extensive line.

"American Beauty" heaters are, according to the makers, built by gas stove experts of the very best materials. They are said to produce the maximum amount of heat with the minimum of gas, the parts coming into direct contact with extreme heat being of the best quality of cast iron, all trimmings being carefully selected. "American Beauty" circulators, Nos. 24, 25 and 26, have been on the market for about ten years, and are well and favorably known to the trade. A number of improvements, however, have recently been made in them. The burners have been changed from one large combination to two separate and independent burners. The old-style burner tubes which extended under the base have been discontinued, and the gas supply now enters the fire-box from the end, from a supply pipe, which can be used with either right or left-hand connection. Each burner has an independent valve and mixer. The cast urn has been replaced by one of handsome design in brass, and other minor improvements have been made in the ornamentation. "American Beauty" circulator No. 123 is very handsomely trimmed with richly carved nickel-plated parts, and its proportions are said to be correct. The curved front is filled with the best quality of mica, giving a beautiful illumination. "American Beauty" circulator No. 70 has been put on the market to meet the demand for a smaller heater, which will embody the circulating idea. It is 30 inches high and covers a floor space of 17½x11½ inches. There are also described and illustrated in the catalogue "American Beauty" radiators Nos. 28, 30, 32, 76, 78 and 80, round heater No. 100, heater No. 90, and eight styles of "American Beauty" combination open and closed front heaters, with full cast fronts. When writing the American Beauty Stove Co. for Catalogue No. 16 kindly mention THE AMERICAN ARTISAN.

TAYLOR'S NATURAL GAS HEATER.

The accompanying illustration shows a sectional view of Taylor's natural gas heater manufactured by the Toledo Stove & Range Co., Toledo, O., and which is claimed by them to embody every feature that modern inventive genius combined with researches in combustion could apply to the production of a stove that would burn readily, economically, and at the same time diffuse heat uniformly over a given area. The basic principle of this heater is the double burner which takes air from the bottom direct, instead of



Sectional View of Gas Heater.

from the side. The heat passes through an inverted funnel of steel which reaches its greatest diameter at the top of the stove, thus allowing heat to radiate while ascending. As the top of the stove is so perforated as to be practically open, the hot air is forced upward and outward, reaching the cold corners and forcing unheated air to the floor where it is sucked into the burner. The Toledo Stove & Range Co. state that with Taylor's natural gas heater it has been demonstrated that a four to a six-room house can be heated in the coldest weather if the directions are followed. As it is so light, weighing but 50 pounds, it may be moved to any part of the house with ease as desired. The Toledo Stove & Range Co. have recently issued a circular very fully describing this gas heater. When writing for it kindly mention THE AMERICAN ARTISAN.

"MATCHLESS" STEEL RANGES.

The Landay Steel Range Co., 2621 N. 15th st., St. Louis, Mo., say that their line of "Matchless" steel ranges are ready sellers, yield a good profit and give every customer complete satisfaction. These ranges have been built especially to meet the demands of the masses, the dealers' interests also having been taken care of. The Landay Steel Range Co. issues a guarantee bond with every "Matchless" range sold. This bond binds the company to furnish free of charge for a period of three years any lining for the fire-box of a "Matchless" range that may burn out within that time. The manufacturers say that every detail of a "Matchless" range is built with the same regard to strength, durability, and service as are the fire linings. The company has recently issued a catalogue in which these ranges are very fully described, and which they request dealers to send for. They announce that they have some choice territory open for salesmen. When writing the Landay Steel Range Co. kindly mention THE AMERICAN ARTISAN.

CATALOGUE OF THE RINGEN STOVE CO.

The Ringen Stove Co., St. Louis, Mo., division of the American Stove Co., have just issued Catalogue No. 75 describing their "Quick Meal" steel ranges. The book contains 56 pages, and is gotten up in very attractive form. In offering their two distinct lines of "Quick Meal" steel ranges, namely, the polished steel and the enameled types, the Ringen Stove Co. say that they have done so with a desire to place their customers in a position where they can meet all classes of competition and furnish their patrons an all-steel range with either a gray, cast or malleable iron top, or a high-class steel range with gray iron trimmings, as occasion may require. "Quick Meal" polished steel ranges are made on a cabinet base or on base and feet. The body of this type of range is made of what is said to be the best quality of polished blue steel. It has the triple walls and the same patent body construction used in all "Quick Meal" ranges. The enameled line of "Quick Meal" ranges is constructed on the same principles as the company's other line, except that they are heavier and the sizes run larger. They are more elaborately nickel trimmed, and the bodies in place of being blue steel, are finished in black enamel that is baked on in a kiln at 300 degrees of heat. In the catalogue is given a detailed description of all coal and wood ranges manufactured by the Ringen Stove Co. The company has added the line of "Comfort" steel ranges with the intention of furnishing a specialty that will replace the steel cook stove or the old-style cast-iron cook stove. In the construction of "Comfort" steel ranges the company says that they have conformed to the general ideas used in constructing the "Quick Meal" polished steel range. The catalogue is well printed, the illustrations being very clear as to detail. When writing for it kindly mention THE AMERICAN ARTISAN.

WHO CAN ANSWER THIS?

To THE AMERICAN ARTISAN:

I would like to be informed as to who manufactures the "Hustler" steel range? It was jobbed by Ellis Powitt Co., but they have gone out of business.

F. D. WELLS & CO.

Brewster, Minn., Oct. 21, 1908.

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 40 to 45 inclusive.

The Virginia Can Co., it is reported, will erect a can factory at Buchanan, Va., to cost $100,000.

Chas. M. Edelmann, formerly a retail hardware merchant of Lowell, Mich., died recently of heart disease.

Erick Olson, a hardware dealer at Clifford, N. D., died on October 11 from injuries received in a railroad accident.

The plant of the Williamsport Iron & Nail Co., at Williamsport, Pa., was on October 5 damaged by fire, the loss being estimated at $50,000.

J. T. Burriss & Son of Anderson, S. C., purpose enlarging the capacity of their metal shingle plant. Additional machinery will be installed.

Damage to the extent of $10,000 resulted from a fire that recently burned the plant of the Rex-Merritt Mfg. Co. of Constantine, Mich., washing machine manufacturers.

Fire on October 15 did damage estimated at $30,000 to the plant of the Milwaukee Woven Wire Works, Milwaukee, Wis. A building 300 x 150 feet was practically destroyed.

The Wilson Nail Co., of Chicago, has been incorporated with a capital stock of $2,500 to manufacture nails. The incorporators are A. W. Wilson, W. T. Jones and W. J. Cox.

Frank B. Dickson has retired from the office of secretary of the California Retail Hardware Association, and has been temporarily succeeded by LeRoy Smith of Smith Bros. Hardware Co., Oakland.

J. C. Gridley, the oldest business man in Victor, Ia., died recently in that city. Mr. Gridley had been in the hardware business for over thirty years, but retired from business activities three years prior to his death.

The Peck & Way Mfg. Co., of Bristol, Conn., has been incorporated with a capital stock of $10,000 to manufacture small springs, bent wire specialties, etc. The incorporators are Chas. W. Peck and Alvah B. Way of Bristol, and D. G. Daniels of Plainville.

Wilhelm Funcke, president of the Hardware Manufacturers' Association of Germany, and head of the firm of Funcke & Huek of Hagen, Westphalia, operating large rolling mills, is now in the United States in company with his son, Oscar Funcke, an engineer.

The International Nut Co., of Niagara Falls, N. Y., has been organized with a capital stock of $225,000 to manufacture nuts, bolts and screws. The directors are Roscoe A. Ellis, Edward D. Cleghorn, Warren Chambers, George M. Tuttle and Robert L. Rice, all of Niagara Falls.

Sperry's sugar kettles, manufactured by D. R. Sperry & Co., hollow-ware founders, Batavia, Ill., are light, smooth, full measure, and are guaranteed by the makers to be perfect in every detail. They are made from original patterns. When writing for prices kindly mention THE AMERICAN ARTISAN.

Mr. A. Vere Martin, 40 Dearborn street, Chicago, is the Chicago representative of The Baker, McMillen Co., Akron, O., proprietors of the Akron spirit level works and manufacturers of the celebrated "Akron Eclipse" level. With Mr. Martin in charge of the Chicago office of The Baker, McMillen Co. it can be safely predicted that the sales of Akron spirit levels will increase.

The Nebraska Retail Hardware Association will hold its eighth annual hardware exhibition, in the Auditorium at Omaha, Neb., on February 16, 17, 18 and 19, 1909. J. Frank Barr, Hall Hardware Building, Lincoln, secretary of the association, is sending out a circular giving information about the exhibition. Mr. Barr says that the indications are that there will be a very large attendance.

Mr. J. C. Brittain, president of Brittain & Co., Inc., San Francisco and Oakland, Cal., was in Chicago during the past week calling on the trade. The house of Brittain & Co., which handles hardware and sporting goods, does a very large business and is one of the most successful concerns on the Coast. Though a new concern it has made strides which many are inclined to class as almost phenomenal.

The Corbin Bros. Co., New Britain, Conn., a new corporation, has built a plant for the manufacture of padlocks, trunk locks, drawer locks, etc. The officers of the company are: President, Geo. W. Corbin; vice-president, A. F. Corbin; secretary, A. L. Mackay; treasurer, Geo. L. Corbin. Geo. W. Corbin, president of the new concern, was formerly president of the Corbin Cabinet Lock Co. of New Britain.

The marriage of Miss Edna Josephine Moore, daughter of James Dolphin Moore of the Moore & Handley Hardware Co., Birmingham, Ala., and past-president of the Southern Hardware Jobbers' Association, to Mr. John Pope Jones, Jr., will take place on November 4. The ceremony will be performed at Birmingham. Cards have been issued announcing the "At Home" at Riverside, Newnan, Ga., after November 20.

"Bubbles" is the title of a humorous booklet issued spasmodically by the Toledo office of the White Lily Mfg. Co., of Davenport, Ia., manufacturers of the celebrated "White Lily" washing machine. The booklet is facetiously termed a "Publizine" and is intended to circulate among the "White Lily" agents, "telling them happenings from time to time and some things that do not." "Bubbles" is well written and should appeal to the humorous propensities of all dealers who handle the "White" line. Mr. A. F. Victor is the editor of the publication.

Mr. Glenwood S. Buck was on October 15 appointed to the position of advertising manager of Butler Brothers, Chicago, which position had been left vacant through the death of the late John O. Perkins. Mr. Buck is a man of wide advertising experience and is thoroughly qualified to fill the position as advertising manager of the great firm of Butler Brothers. Mr. Buck was formerly editor of "Buck's Shot," a St. Louis periodical. We feel confident that he will

prove to be a worthy successor to the late Mr. Perkins whose recent death caused so much regret among the advertising fraternity in Chicago.

A meeting of the retail hardware dealers of Florida will be held in Jacksonville, Fla., on October 28 for the purpose of organizing a state retail hardware dealers' association. W. K. Jackson of the Jackson & Wilson Co., Lakeland, Fla., and one of the most enthusiastic supporters of the movement, has written to retail hardware dealers throughout the state urging them to attend the meeting. As the date for the meeting occurs during "Carnival Week," Mr. Jackson looks for a large attendance of dealers because of the low rates of transportation that will be offered. In his letter Mr. Jackson says: "The hardware trade has grown so rapidly and has assumed such proportions that the 'slip-shod' or 'any-old-way' methods will not give to the dealer or to his customer what he is entitled to. The hardware trade of any state is in no greater need of organization than it is in Florida."

"Can you induce your customers to throw away their old lawn mower and buy a new one with ball bearings which a child can run with ease? How can you induce the farmer to replace his old stump fence with a new locked wire fence which a pig can only get through when it is made into sausages? How could you expect them to adopt the latest improvements if your own store is an advertisement for everything that is out of date?" This is what W. B. Heller & Co. of Montpelier, O., say on a card that they are sending out and which is intended to advertise their booklet entitled "Simple System," which, they say, will tell dealers the most economical way of making their store modern. As is well known W. B. Heller & Co. manufacture the celebrated Heller's steel shelf boxes, cases, etc. They state that many hardware dealers in the country have adopted their "Simple System" for displaying, selling and systematizing their stocks. W. B. Heller & Co. will be pleased to mail their "Simple System" booklet to those who will write for it. When writing kindly mention THE AMERICAN ARTISAN.

A UNIQUE WINDOW DISPLAY.

Among the window displays that received honorable mention from the judges in THE AMERICAN ARTISAN'S hardware window display competition, was that made by Sam G. Birchard, Grinnell, Ia., who entered the contest under the assumed name, "Imogene." The following is Mr. Birchard's description of the window:

"I set a 'Round Oak' heater in the center of the window. The posters were furnished by the 'Round Oak' people. The large ones were set at an angle of about 45 degrees so that they pointed in toward the stove. The floor was strewn thickly with oak leaves, and a row of booklets descriptive of 'Round Oak' stoves was placed along the front of the window with different pages opened so that they could be read. A 'Round Oak' banner made of oak leaves was placed above the stove. In front of the stove was a bucket of soft coal, one full of hard coal and another full of wood. The background was composed of the advertising booklets having brightly colored backs, and so arranged as to give great variety in color. On the top of the stove was a paper balloon. When a light was placed in the stove at night it showed up nicely, and being something out of the ordinary it, of course, attracted much attention. The partition to the left was decorated with oak branches. A placard was used in the display which bore the following message to the prospective customer: 'These leaves are genuine and so is this stove. It is the original 'Round Oak' made by the Estate of P. D. Beckwith, Inc.'"

Honorably Mentioned by the Judges in THE AMERICAN ARTISAN'S Hardware Window Display Competition—Submitted by Sam G. Birchard, Grinnell, Ia.

THE WHITE LILY MOTOR WASHER.

The White Lily Mfg. Co., 1500 Rockingham Road, Davenport, Ia., report steadily increasing sales of their White Lily motor washer, which, they say, is of standard White Lily quality throughout. It is of simple

construction, there being no springs in the cylinder and only one in the piston. The motor is small and compact, though powerful. The wearing parts of the machine are of brass. The tub is of selected Louisiana cypress and finished in mahogany. The White Lily Mfg. Co. say that this washer operates on very low pressure and that it is giving universal satisfaction. When writing for descriptive literature kindly mention THE AMERICAN ARTISAN.

ATTRACTIVE PHOTOGRAPH CALENDARS.

The Richards Mfg. Co., Aurora, Ill., manufacturers of door hangers and hardware specialties, state that their monthly photograph calendars, an illustration of their November calendar appearing herewith, have

November Calendar of The Richards Mfg. Co.

proved very popular with the hardware trade and architects. The Richards Mfg. Company began to issue these calendars in January, 1907, with a small number each month, but the popularity of the little cards has been so great and the demand for them so steadily increasing, that the company is now sending out nearly 11,000 copies monthly. The fact also that these cards are actual photographs and not reproductions adds very materially to their attractiveness. The Richards Mfg. Co. states that scarcely a mail reaches them that does not contain a number of requests from prominent hardware concerns and architects down to small cross-roads stores, requesting the company to place them on their mailing list for their photograph calendars. The object of the Richards Mfg. Co. in circulating these calendars is, of course, to keep their name prominently before the hardware trade, and that they have been successful in this is evidenced, they say, not only by the great interest manifested in the cards themselves, but also in actual orders for goods. Any hardware dealer, architect or contractor will be furnished with a copy of the calendar upon application. When writing for it kindly mention THE AMERICAN ARTISAN.

A NEW SELF-BASTING ROASTER.

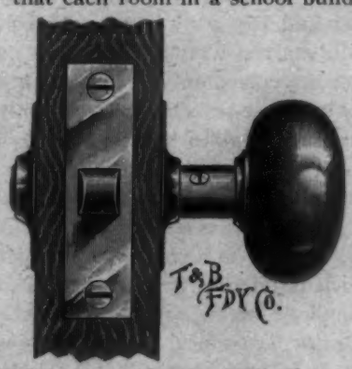
The accompanying illustration shows the new self-basting roaster which Lalance & Grosjean Mfg. Co., New York, Chicago and Boston, have put on the market, and of which the perforated inside tray is one of the principal features. Lalance & Grosjean Mfg. Co. state that the sales of this roaster have exceeded their most sanguine anticipations. The inside length of this roaster is 15 inches, the outside length 16 inches, the inside width 10¾ inches, the outside width 11¾ inches and the depth 8¾ inches. The manufacturers

New Self-Basting Roaster.

say that it is the most practical self-basting roaster on the market today. It is made in four enamels. In gray, it may be had in agate nickel steel, and in "El-an-Ge" finish. In the white line it may be had in the popular robin egg blue and turquoise. It is also made in black and steel lacquered. When writing Lalance & Grosjean Mfg. Co. for further information kindly mention THE AMERICAN ARTISAN.

SCHOOL HOUSE FIRE-DOOR LOCK SET.

The laws of the State of Ohio make it imperative that each room in a school building be connected with a separate fire escape with a door to the same swinging outward. In order to supply the demand for a lock set that this law has created in Ohio, that can be easily operated from the inside and not from the outside, The Taylor & Boggis Foundry Co. of Cleveland, O., have put on the market a line of fire-door lock sets, one of which is shown in the accompanying illustration. This lock is made for doors 1¾ to 2¼ inches thick, and for thinner doors as ordered. It is made of bronze metal, but can also be furnished in steel. Plain bronze is the popular fin-



New Lock Set for Fire-Door.

ish though the lock may be had in other finishes if so desired. The Taylor & Boggis Foundry Co. state that there is a large demand for these locks, and that no lock can be designed which is better adapted for the purpose for which it is constructed than those which they are putting on the market. When writing The Taylor & Boggis Foundry Co. kindly mention THE AMERICAN ARTISAN.

"WORLD'S BEST" TUBULAR TRACK DOOR HANGER.

The Safety Door Hanger Co., Ashland, O., and Hamilton, Ont., have put on the market the "World's Best" tubular track door hanger, which is a new design in the way of a door hanger. In order to insure the easy running of this hanger the company makes the announcement that they have increased the diameter of the wheel of the hanger to 2¼ inches. The frame of the tubular track door hanger is made of the best grade of malleable iron. The track brackets are slidable and may be placed at any point desired, derailment being guarded against by a supplementary wheel. These hangers are finished in aluminum, and each pair is packed in an individual box complete with bolts. The Safety Door Hanger Co. guarantees the "World's Best" to perform its functions efficiently, and to give general satisfaction. The company states that they do not sell to catalogue houses. Descriptive literature and prices will be furnished upon request. When writing for it kindly mention THE AMERICAN ARTISAN.

"World's Best" Door Hanger.

A NEW CORN-POPPER.

Henry L. Leilich of the Delphos Mfg. Co., Delphos, O., was on October 13 granted a patent on a corn-popper, Mr. Leilich having assigned the patent to the Delphos Mfg. Co. The application was filed on May 29 of this year. The receptacle of the popper has a hollow handle provided with spaced openings, a cover slidingly mounted on the receptacle and a spring rod attached to the cover and projecting beyond the outer end of the handle and having its inner end projected outwardly through one of the spaced openings and engaging the cover. The rod is crimped within the handle to form a spring detent which co-operates with the openings in the handle to normally retain the cover in an adjusted position. The number of Mr. Leilich's patent is 901,302, the serial number being 435,627.

New Patented Corn-Popper.

THE "EMPIRE" DOOR HOLDER.

The Caldwell Mfg. Co., 41 Jones St., Rochester, N. Y., has recently put on the market the "Empire" door holder which has already become one of the most popular of the extensive line of hardware specialties manufactured by this well-known company. The device which is made of malleable iron, is designed to be operated by a light pressure of the foot so that there is no necessity for a person to stoop when adjusting it to hold the door. The Caldwell Mfg. Co. says that the rubber tip and spring action with which it is provided, make it particularly desirable for use on carpet, polished wood, or tiled floor. The "Empire" door holder is made in three sizes, small, medium and large. The manufacturers say that by reason of its efficiency it has proven to be a ready seller wherever introduced. The Caldwell Mfg. Co. will be pleased to forward their catalogue of hardware specialties to the trade upon request. When writing for it kindly mention THE AMERICAN ARTISAN.

The "Empire" Door Holder.

THE MEMPHIS CONVENTIONS.

Mr. F. D. Mitchell, 309 Broadway, New York city, secretary-treasurer of the American Hardware Manufacturers' Association, is sending out the following circular letter relative to the joint convention of the hardware manufacturers and jobbers to be held at Memphis in November:

At the conventions of the National Hardware Association of the United States and the American Hardware Manufacturers' Association, which will be held in Memphis, Tenn., on the 18th-20th proximo, all members, and certain visitors, will be furnished with an identification badge similar to those used at our last six conventions, displaying the name of the delegate, and the name and address of the company represented. We inclose herewith return-addressed postal form which kindly fill out and mail at your earliest convenience, that we may avoid typographical errors, and furnish all delegates upon their arrival at the convention with badges correctly printed.

Entertainment Features: For this occasion, which will undoubtedly prove the largest and most successful hardware convention ever held, the National Hardware Association, as well as our Association, will, in connection with the social and entertainment features, have the active assistance of a large contingent of local hardware manufacturers, jobbers, retailers and prominent citizens engaged in the allied trades, and these gentlemen (numbering about fifty) have already, in their various committees, decided upon certain entertainment features for the convention, but they rely upon receiving through this office as early as possible, definite information regarding attendance, to enable them to make definite contracts as committees or sub-committees.

May we again request the favor of your early response by the inclosed return-addressed postal?

THE "EUREKA" ALCOHOL SAD IRON.

The "Eureka" alcohol sad iron of the Eureka Alcohol Utilities Co., Inc., 1139-1143 Real Estate Trust bldg., Philadelphia, Pa., is said by the company to be the result of experiments and experience extending over not less than three years. When they went into business they state they did not know much about this sad iron, but numerous tests have since proved it to be a sad iron than which there is none other now on the market that is more serviceable or that has become more popular with the trade. The "Eureka" alcohol sad iron is of American manufacture, and is guaranteed by the Eureka Alcohol Utilities Co. to possess all the necessary qualities that a first-class sad iron should. They are packed one-half dozen in a case. When writing the Eureka Alcohol Utilities Co. for further information kindly mention THE AMERICAN ARTISAN.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND CORPORATIONS.

Brooklyn, N. Y.—C. J. Ahlborn Co. has been incorporated with a capital stock of $3,000 to engage in the hardware business.

Sharon, Pa.—The Sharon Hardware Co. has been incorporated with a capital stock of $75,000.

Bartley, Neb.—Ball Bros. have opened a hardware, stove and implement store.

Malden, Mass.—Thos. W. Ryan has opened a hardware store.

Swedenburg, Neb.—C. A. Luis has engaged in the hardware business.

Yutan, Neb.—A. Ohmstede & Sons have opened a hardware store.

Arnold, Neb.—F. M. Spegal has opened a hardware store.

Saratoga Springs, N. Y.—The Towne Hardware Co. has been incorporated with a capital stock of $20,000.

Uniontown, Ala.—The Canebrake Hardware Co. has been incorporated with a capital stock of $6,000.

Alma, Kas.—A. R. and Warner Strowig will open a hardware store on November 1.

Ardmore, Okla.—New State Harness & Hardware Co. has been incorporated with a capital stock of $25,000.

Tacoma, Wash.—O'Connor Bros. have opened a hardware store.

Edmunds, Wash.—Mothershead & Patterson have engaged in the hardware business.

Bay Minette, Ala.—The Baldwin Hardware Co. has been incorporated with a capital stock of $10,000.

BUSINESS CHANGES.

New York, N. Y.—Wm. Wilkening has succeeded Albert Rothermeal in the hardware business at 432 E. 149th street.

Wilbur, Wash.—The W. F. Hankel Co. has changed its name to the Wilbur Hardware Co.

Emington, Ill.—J. H. Murdey has sold his hardware stock to Soule & Combs.

Gainesville, Fla.—S. J. and T. F. Thomas of the S. J. Thomas Co. have sold their interests to S. J. Gunn, C. W. Sproull and T. W. Shands.

St. Joseph, Mo.—Julius Marr has sold his hardware stock to the Hinkley Hardware Co.

Lake Park, Ia.—Fred Strube has sold his hardware and stove business to A. F. Hamann.

Carroll, Ia.—Lenz & Collison have succeeded to the hardware and stove business of P. V. Lenz.

Bandon, Ore.—T. W. Robison has sold his hardware stock to Geo. P. Laird and Thos. Nielson.

Walla Walla, Wash.—J. H. Morrow and Cyrus Drew have purchased the hardware and implement stock of the Cox-Barnett Co.

Ardmore, Okla.—Noble Bros. and J. C. Preddy have been succeeded in business by the Preddy-Noble Hardware & Implement Co.

Wymore, Neb.—The Wymore Hardware Co. has purchased the Schad hardware stock.

Summit, Neb.—Earl Russell has purchased the hardware stock of Walker & Co.

Central City, Neb.—Mr. Ewing has retired from the hardware firm of Morris & Ewing.

Edgar, Neb.—Mr. Rife has purchased the business of the Richard Hardware Co.

Haskell, Neb.—L. Colbenson has purchased the hardware stock of Westburg & Johnson.

Lovilia, Ia.—J. D. Devereaux has purchased the hardware business of Rice & Hill.

Ohio, Ill.—Balcom & Son have purchased the hardware stock of Hannan & Faley.

Braymer, Mo.—Goddard and Owens have sold their hardware stock to Low Wells & Son.

Prague, Neb.—V. J. Voboril has sold his hardware store to John J. Polak.

Greenup, Ill.—Hiram Boots has purchased the hardware store of W. O. Cougill.

Richmond, Ind.—Jonas Gaar has disposed of his interest in the Pogue-Miller Hardware Co. to George, Fred and Jacob Miller.

Lone Elm, Kas.—M. Carrier has sold his hardware stock to A. W. Wiggins.

Lowell, Mich.—Stowell & Ford have purchased the hardware stock of Chas. Edelmann.

Albert City, Ia.—Herman Anderson has sold his interest in the hardware firm of Anderson & Nelson to his father, George R. Anderson.

Baraboo, Wis.—John F. Reuland has purchased the hardware store of A. H. Pratt.

Oconto, Wis.—O. A. LaBudde has sold his hardware store to James and Albert Millen of Muskegon, Mich.

MISCELLANEOUS.

Fairfield, Wash.—The store of the Loy Hardware Co. was damaged by fire.

Letts, Ia.—The hardware store of W. S. Griffin has just been completed.

Marquette, Mich.—The hardware store of B. Neidhart & Co. was burglarized.

Vernon, Tex.—The Kelley Hardware Co. suffered a loss due to fire.

Woolstock, Ia.—The hardware store of W. T. Jones was damaged by fire.

Tehama, Cal.—The hardware store of John Simpson was damaged by fire.

Fort Scott, Kans.—The Davis Hardware Co. has increased its capital stock from $10,000 to $20,000.

Touchet, Wash.—M. M. Caiser has added hardware to his general stock.

Gerald, Mo.—F. W. Gottenstroeter has moved his hardware stock into his new store building.

Okemah, Okla.—The Dossey Hardware Co. has moved its stock into the new store building.

Lincoln, Neb.—The Rosenberg Hardware Co. has moved into its new store building.

Anthony, Kans.—Terrill & Son are erecting a new building for their hardware and implement stock.

Burlington, Kans.—J. H. Sheldon has moved his hardware stock into new quarters.

Augusta, Wis.—The Linder hardware store was burglarized.

Tiffin, O.—The hardware store of Fred Grummel was damaged by fire.

Sebree, Ky.—The hardware store of W. I. Smith was damaged by fire.

Grand Rapids, Mich.—The store of the Miles Hardware Co. was burglarized.

Salt Lake City, Utah.—The King Hardware & Stove Co. has changed its name to the Scott Hardware Co.

Malvern, Ark.—The building and stock of the Simpson Hardware Co. was damaged by fire.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

The advertisement of John D. Bee & Sons of Lynn, Mass., would have looked much better had the word "roofers" appeared in the center at the top instead of in the left hand corner. As it is, the space to the right of the black border has been wasted. Had this been utilized larger and more prominent type could

ROOFERS

The SATISFACTION to be obtained in a well-made roof is sufficient in itself; but when the price is also considered it is doubly satisfactory.
We Have Been in the Roofing Business All Our Lives.
Our Reference—Ask the man who owns one of our roofs.

JOHN D. BEE & SONS 45 SEA STREET

have been used in the ad. It is a great mistake to "ornament" an advertisement with such an ungainly looking border as that appearing in the upper left hand corner. It not only detracts from the appearance of the ad. but it takes up valuable space that could be utilized to a much greater advantage. The ad. appeared in the *Lynn* (Mass.) *Evening News* of September 1, and took up two inches of space two columns wide.

* * *

The advertisement of Hunter & Wilkinson of Saranac, Mich., shown herewith, is a very good one of its kind, the advertisers calling attention to reductions in prices of screen doors and vapor stoves, and also to

We are making big reductions on the price of

Screen Doors
and
Vapor Stoves

in order to reduce stock. We can also make you very attractive prices on the

Pioneer woven wire Fence

HUNTER & WILKINSON

the Pioneer woven wire fence. An ad. like this can be depended on to bring better returns than one in which the space has been filled to more than its capacity. It appeared in the *Saranac* (Mich.) *Advertiser* of September 3, and took up 4½ inches of space, three columns wide.

* * *

The advertisement of M. A. Benson of Saranac, Mich., in which the "Favorite" base-burner is featured, is a very good one for several reasons. The arrangement of the ad. is very good, the ad. shows up to good advantage and the text has been prepared in a manner to convince readers of the good qualities of the article advertised. Attention is directed to the fact that the "Favorite" possesses certain features not found in any other coal stove. It is always in order to mention any distinctive features claimed for the article or articles advertised, but it is quite as important that these features should be brought out in prominent type. Unfortunately in the ad. shown herewith in reduced form, the most important facts and words appear in type altogether too inconspicuous. In the first place a separate paragraph should be made of "The following features," etc., near the top of the ad. This should also have appeared in bolder type, similar to that shown in the line "in no other coal stove." "Triple exposed flues and back," etc., should also have been set in larger type. It is asserted that the stove advertised will consume "one-half to one ton of coal

Favorite

Guaranteed Fuel Saver

The best made and closest fitted joints of all base burners. The following features found

In no other coal stove

Triple exposed flues and back, 118 per cent increased radiating surface,

$12,000

was expended by the maker for special machines to grind and fit all doors and frames.

Air Tight

Three Flue construction. We guarantee satisfaction to the user or money refunded if they will not do as claimed and consume

1-2 to 1 ton of coal

less every season than any other base burner. Strong claim is it not? We mean it. You may be confused as every dealer claims to have the best stove. What better can you do than to ask users

WE REFER YOU TO

A few who have Favorites here

Andrew Lane	Mrs. M. Williams	Mrs. Jane Abraham
Samuel E. Yocum	Dr. Simpson	Marion Root
James Fisher	Charles Wallington	Arthur Condon
Levi S. Vaughn	Ed Myers	Charles Frost
Tracy G. Lowrey	August Fisher	Alexander Sprague
Saranac State Bank	Tom Beauson	Lee Jones
Thomas Myers	Dan Slowinski	Tom Crane
Albert Reed	George Case	C. L. Wilson
	Willard Hassler	Frank Walters

M. A. BENSON
SARANAC, MICHIGAN

less every season than any other baseburner." And yet the word "less" which is by far the most important word in the sentence appears in a style of type which is the smallest used throughout the entire advertisement. As a matter of fact too many styles of type have been used in the ad. The plan adopted by M. A. Benson in giving as references to the good qualities of the "Favorite" baseburner the names of individuals who are now using that stove in Saranac, is a unique and commendable one. It should tend to inspire confidence in the minds of all readers of the ad. that the claims made for the stove advertised are not far-fetched but are on the contrary, true in every detail. There can be no doubt that M. A. Benson has obtained or will obtain good results from this ad., which appeared in the *Saranac* (Mich.) *Advertiser* of October 8, and occupied 10¼ inches of space, three columns wide.

Heating and Ventilating

THE WARM-AIR FURNACE, VERSUS THE STEAM OR WATER BOILER.

BY WM. T. ANDREWS, MEMBER OF THE FEDERAL FURNACE LEAGUE.

Rarely indeed is any line of business called upon to suffer at the hands of both its enemies and its friends. Few institutions could endure for any extended period such a combination of adverse circumstances; yet warm-air heating has for several years been subjected to most bitter attacks by manufacturers of steam and hot-water boilers, and at the same time has been so treated by some of those interested in warm-air furnaces as to bring it into as much discredit as possible. Mechanics have frequently obtained contracts for heating houses with warm-air furnaces in which the price seemed to be the sole governing feature; they have often done the installation work in the cheapest way conceivable, and have used furnaces constructed merely to meet the requirement of being furnaces.

No argument is needed to make it evident that such a course would inevitably bring discredit upon warm-air heating. On the other hand the manufacturers of steam and hot-water boilers have exhausted their vocabularies and their stock of ideas in vituperations on warm-air furnaces. In fact they have carried the campaign so far that it would seem it must react upon them. One of the largest manufacturers of steam and hot-water boilers in the country has gone so far as to say that the average durability of a hot-air furnace is twelve years; that steam boilers and hot-water boilers are indestructible.

An answer to a claim of this sort is, that plenty of warm-air furnaces can be found that have been in use between 20 and 30 years, and are still in use; and no one can tell when they will be given up. We will not undertake to say what the length of life of a steam or hot-water boiler is; but it is probably less.

The same authority says of heat distribution: "By hot air, uneven and difficult; by steam, positive; by hot water, unsurpassed." Of ventilation: "By hot air, bad and drafty; by steam, A No. 1 with indirects; by hot water, A No. 1 with indirects."

Comment on a statement of this kind is scarcely necessary, but it is well to note that in speaking of the ventilation by steam and hot water, the authority *does* take the precaution to say that it is by indirect radiators.

About the total absence of any ventilation whatever with direct steam and hot water he says nothing, and almost all steam or water heating is done by direct radiation.

Of quality of heated air: "By hot air, scorched and burned; by steam, good; by hot water, genial, fresh."

We hate to think of any one so ignorant as to be fooled by any such nonsense as that!

Of danger of explosion: "By hot air, slight; by steam, none; by hot water, none."

Does it seem possible that any sane business man would expect an intelligent public to believe what he tries to imply, that there is more danger of explosion from a hot-air furnace than there is from a steam boiler?

Of noise: "Hot-air pipes conduct much; steam, noiseless; hot water, noiseless."

We should like to have explained what the pounding noise is which is so frequently heard in connection with "noiseless" steam and hot-water pipes; and what noise it is which he says hot-air pipes conduct.

Of management: "By hot air, troublesome; by steam, easy, automatic; by hot water, easy, automatic."

We assume from this that steam and hot-water boilers do not require feeding with coal, and do not have to have the ashes removed, as these are practically the only things that have to be done with hot-air furnaces, which are described by the authority as being "troublesome."

The foregoing quotations from the publications of the house referred to are sufficient to illustrate the apparently desperate frame of mind in which the advertiser finds himself; and it is no compliment to the people to whom the matter is addressed that such twaddle and untruths should be used. Evidently the person who prepared such statements is convinced that he is combating a system of heating which really has great merit, else he would not resort to such discreditable statements in his zeal to throw discredit on hot-air heating. Yet in spite of all that has been done, both by those who set hot-air furnaces and those who manufacture boilers, to crush the warm-air heating business, warm-air heating continues to be employed, and is apparently regaining its old pre-eminence, and manufacturers of hot-air furnaces have at last come to realize the value of their product, and its superiority over all other methods of heating, and its right to first place in the estimation of the public, and though, during the violence of the attacks made upon it by the steam and hot water people the warm-air furnace men have remained quiet and apparently completely subdued, they have at last recovered their courage, and have undertaken a defensive and offensive campaign for the warm-air furnace.

They have comparatively easy work; the people of this generation are much more intelligent on the matter of hygiene and sanitation than any preceding generation; people are familiar with references to, and discussions of, questions of health and healthful surroundings; experience has taught many people that fresh air, the one thing which is unlimited and costs nothing, is not only essential to our existence, but has great powers in overcoming certain disturbed conditions arising in the human body.

With this basis it ought not to be very difficult to convince a person that a warm-air furnace, which brings into the house, whenever the furnace is employed for heating, a constant supply of fresh air from out-of-doors, has, in this fact alone, sufficient claim for preference over a steam or hot-water boiler, which simply warms over again the air which was in the room when the heating was started.

The boiler men make great claims for their apparatus, that much less fuel is consumed; but if the warm-air furnaces did only what the water or steam boiler does, the probability is that the warm-air furnace would consume less fuel than the boiler, for if the air from the various rooms be taken back to the furnace and warmed over and over again it is quite a different task from taking air from out-of-doors at zero, or lower and immediately raising it to 70 degrees.

With institutions established in various parts of the country for those suffering with pulmonary troubles to sleep and live out-of-doors that they may be constantly in the fresh air, with the very practical demonstrations constantly before us of young people's health being much improved by out-of-door exercises, with adults seeking the benefits of out-door exercise in golf, boating, and touring in automobiles, it should be a very easy matter to make it evident to every reasonable person that when we are within our homes we can poorly afford to dispense with the fresh air which is so essential to our health.

If the warm-air furnace men were to resort to such questionable means as have been employed by their opponents, they would denounce in the strongest terms the unhealthfulness of steam and hot-water systems.

Let it be understood that no reference is made to indirect steam or hot-water heating in the foregoing remarks. This form (the indirect) supplies fresh air; but its construction and its operation are so very expensive that only the wealthy can afford to have it, and the places where it is used are so few that that phase of the question is negligible.

As though warm-air furnaces had not had troubles enough, it is, in addition to all those already referred to, subjected to the very important one of having its rights neglected by the architect in planning a house to be heated by warm air. The architect apparently is prejudiced against warm-air furnaces, and in making his plans he too frequently positively refuses to take into consideration the fact that in order to do its work properly, the warm-air furnace must have certain conditions provided for it; but the furnace is planned to be put where it is at great disadvantage in the matter of distributing heat; the pipes have to be carried through awkward, out-of-the-way places, to the great disadvantage of the flow

of air; and too often with insufficient space for the proper capacity.

It is to be hoped that the architect can be brought to see that proper provision must be made for the warm-air furnace, as much as for a water service, or a gas service, or an electric lighting outfit; and that its claim for room and proper arrangement cannot be entirely ignored.

WALWORTH DEFLECTING WALL REGISTERS.

The Walworth Run Foundry Co., 2485 W. 27th St., Cleveland, O., say that their Walworth deflecting wall registers, although having been on the market a comparatively short time, have become very popular among furnace men. In getting up these registers the Walworth Run Foundry Co. say that they have carefully considered the wants of the furnace man as well as the public. The depth of these registers is less than one inch, taking up very little room in the wall pipe. There is only one valve, which may be set at any angle, permitting of good heat regulation. Opening at an angle, it defects the heat into the room away from the draperies and ornaments. The manufacturers say that the only objection advanced against these registers was the difficulty of fastening them to the wall pipe. They claim to have overcome this by making the frame and box in one piece, all that is necessary to fasten them being to remove the face which is fastened by one screw, push the box into the tin frame and against the wall, draw the straps tight and replace the face. The Walworth deflecting wall register can be used on a "double head." It takes the place of the convex, and takes up no room in the wall pipe. It has a face of large open area, and is made in standard sizes, fitting regular stock sizes of fittings. These registers are made in three styles, vertical, horizontal and baseboard. The company are also makers of the celebrated semi-steel floor and convex registers of all sizes and finishes. When writing for descriptive literature and price list kindly mention THE AMERICAN ARTISAN.

MONCRIEF WARM-AIR FURNACES.

Simplicity, durability, capacity, comfort and economy are said to be the chief characteristics of the "Moncrief" warm-air furnace, manufactured by Henry & Scheible Co., 825-29 Long avenue, N. W., Cleveland, O. The radiator of this furnace consists of a large combustion chamber resting on the feed section or lower radiator, and is crowned with an all cast top return flue, which compels the products of combustion to travel around both sides of the top before entering the smoke exit—retaining the products of combustion within the casing walls for a sufficient length of time to extract the available heat from them. The fire-pot of the "Moncrief" furnace is of heavy weight and nearly straight, making it practically impossible for ashes or coal to lodge on the sides. As the lower part of the pot is more or less filled with ashes and the upper part with live fuel, the upper part expands to a greater extent than the lower one, hence the reason for making the fire-pot in two sections, with the cup-joint in the center. The feed section, or lower radiator, rests upon the upper section of the fire-pot in a deep cup joint, and the feed-door opening is large. The casting rings are made of heavy wrought iron, with lugs for double casings and are always of exact size. The Moncrief duplex grate reduces the labor of cleaning the fire-pot and renders unnecessary the use of a poker or slicing bars. Good literature upon application, and when writing Henry & Scheible Co., kindly mention THE AMERICAN ARTISAN.

PARAGRAPHS.

The Gibbs Foundry & Machine Co. of Watsontown, Pa., have purchased the old Susquehanna Foundry & Machine Works, which they are now repairing, for the manufacture of furnaces and attachments to be supplied to hot-air furnaces, forming a combination heater, supplying hot air to the first floor and hot water for the upper floors.

The Illinois chapter of the American Society of Heating and Ventilating Engineers held its annual business meeting at Chicago on October 12, at which the following officers for the ensuing year were elected: President, Geo. Mehring; vice-president, Edmund F. Capron; secretary, John F. Hale; treasurer, August Kehm; board of governors, James Mackay, R. A. Widdecomb and Samuel R. Lewis. A vote of thanks was tendered the outgoing officers for their services to the Illinois chapter during their term of office.

The plant of the Meyer Furnace Co. at Peoria, Ill., was seriously damaged by fire on October 14, the greatest loss being due to the destruction of patterns. New patterns, however, have already been contracted for, and the Meyer Furnace Co. will have no difficulty in filling all orders promptly within a week or two. The warehouse of the concern was also damaged, though not to a very serious extent. The large stock that the company has on hand will enable it to take care of present requirements promptly.

As there seems to be an impression that the recent fire at Peoria, Ill., which damaged the plant of the Meyer Furnace Co., wrought damage also to the plant of F. Meyer & Bro. Co., manufacturers of the "Handy" furnace pipe, F. Meyer & Bro. Co. state that the fire did not reach their plant at all. They are located several blocks away from the Meyer Furnace Co. F. Meyer & Bro. Co. announce that they are fully prepared to take care of any and all orders and are really in better condition to make prompt shipments than ever before.

The Utica Heater Co., Utica, N. Y., have recently issued a neat and well gotten up catalogue describing the "Superior" furnaces manufactured by them. Special attention is directed in the catalogue to the additions made to the company's line in the "Superior" sanitary air warmer, the "Superior" 300 series, and the "Superior" 1100 and 1200 series, all of which are said by the Utica Heater Co. to have met with marked success since their introduction. The illustrations appearing in the catalogue are of a high order and show up to excellent advantage the construction of "Superior" furnaces. Several useful tables are also given in the book.

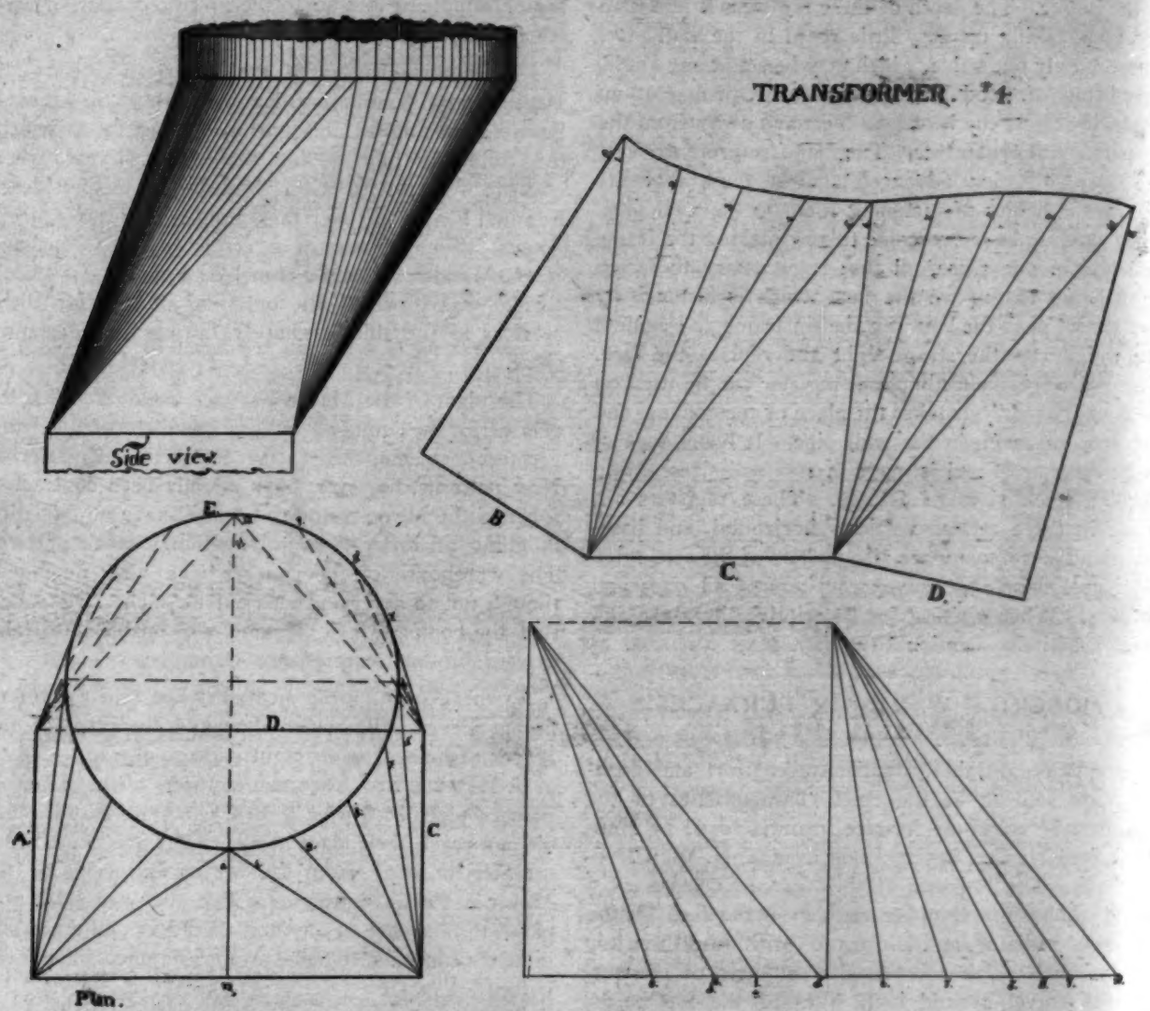
Tinshop

THE PUBLISHER IS PLEASED TO ANNOUNCE THAT THE AMERICAN ARTISAN WILL BE SENT FREE OF CHARGE FOR THE REMAINDER OF 1908 TO NEW SUBSCRIBERS FOR THE YEAR 1909. YEARLY SUBSCRIPTIONS SENT NOW WILL BE CREDITED TO THE END OF 1909.

TRANSFORMER NO. 4.

BY G. L. GRAY.

To draw pattern for transformer making an offset, the offset can be made as much or little as the maker wishes, by using the method here shown. In these problems the plan is the important part of the work, so care should be taken that the plan is properly laid out. A half-plan and half-pattern is all that is required for this problem, for the other half is the same.



The method required to develop this problem is the same as previously explained for transformer No. 1, as the same methods will apply to any of these changes in plan and elevation.

CONVENTION OF MASTER SHEET METAL WORKERS OF TEXAS.

The Texas Association of Master Sheet Metal Workers held its annual convention at San Antonio, Tex., on Oct. 2 and 3, in the auditorium of the Business Men's Club of San Antonio, President T. P. Walsh of San Antonio calling the meeting to order. J. B. Carrington, secretary of the Business Men's Club, extended the hand of welcome and good fellowship to the visitors. Mr. Carrington in the course of his remarks stated that building activities of San Antonio had reached the highest mark in the history of that city, San Antonio during the month of August having led all the cities of the United States in the percentage of increase in building operations. L. H. Atwell of Fort Worth responded to the address of welcome, expressing the pleasure of the visitors upon being the guests of the historic city of San Antonio.

President Walsh made a verbal report, showing the association to be in good condition. His principal recommendation regarding future plans was that an organizer be kept actively in the field, for the reason that only seven Texas cities are now members of the association, whereas it is hoped to extend the influence of the organization into every city and town in the state which has one or more sheet metal shops.

Secretary S. A. Menczer of Fort Worth reported the association with a good financial balance on hand. Brief talks were made by T. P. Walsh of San Antonio, W. A. Jones of Dallas, L. H. Atwell of Fort Worth, H. B. Vodrie of San Antonio and S. A. Menczer of Fort Worth. An elaborate entertainment pro-

gram was provided for the visitors, including an automobile sight-seeing trip, a visit to Electric Park and to the Fair grounds, a banquet winding up the last day's session.

Two of the most important topics discussed at the convention were the "open shop" question and the reforming of the apprentice system. Through individual and concerted action, the Texas Association of Master Sheet Metal Workers expects to accomplish these reforms without disturbing the peaceful relations between the workers and the employes. Speaking of the "open shop" policy, Secretary Menczer is quoted as follows:

"The union simply cannot furnish us a sufficient number of competent men, so we propose to develop skilled help. The 'open shop' is the only just system of operation. We want to be able to pay a workman according to his actual worth. Under the 'closed shop' system some get more than they are worth and others get less. We propose to restore the policy of graduating the wage according to merit and faithfulness. We do not think one horse is worth as much as another horse. There is a difference. By paying a man what he is worth we expect to develop better men and give our employes an incentive to improve their usefulness. In some instances expert men are paid more than the union scale, and this shows the disposition on the part of the workers to give the men a square deal. Where we suffer is in having to pay some employes more than they earn."

Secretary Menczer also discussed the reform in the apprentice system which the Texas master sheet metal workers propose to establish. Under the present union system the union admits an apprenticeship to extend for a period of three years. The employers contend that the qualifications are not sufficiently stringent, and that many, after three years of apprenticeship, are accepted into the union and the employers are forced to pay them full wages before they are actually competent.

THAT SQUARE TO ROUND PROBLEM.

To The American Artisan:

In answer to Mr. Fred A. Weider of Batavia, N. Y., who in The American Artisan of October 3 asked for a quicker way to lay out a cold-air box from square to round, than was shown by my problem in The American Artisan of September 19, I fail to see why Mr. Weider wishes to make a square to round *in one piece*. From the dimensions given, namely, 14 inches long, 14 inches in diameter and 20 inches square at the other end, the stretchout of the 14-inch round end would be 43¾ inches, while the stretchout of the 20 x 20-inch end would be 80 inches, which would cause a great waste of metal if made in one piece and no saving of time.

In all my school drawings and instructions I do not use a single jump rule, and I advise every cutter to leave the "lightning methods" alone, for they are the slowest in the end.

If a person understands the method of triangulation he will have no difficulty in laying out a square to round as shown in my problem of September 19, and but very little time is required.

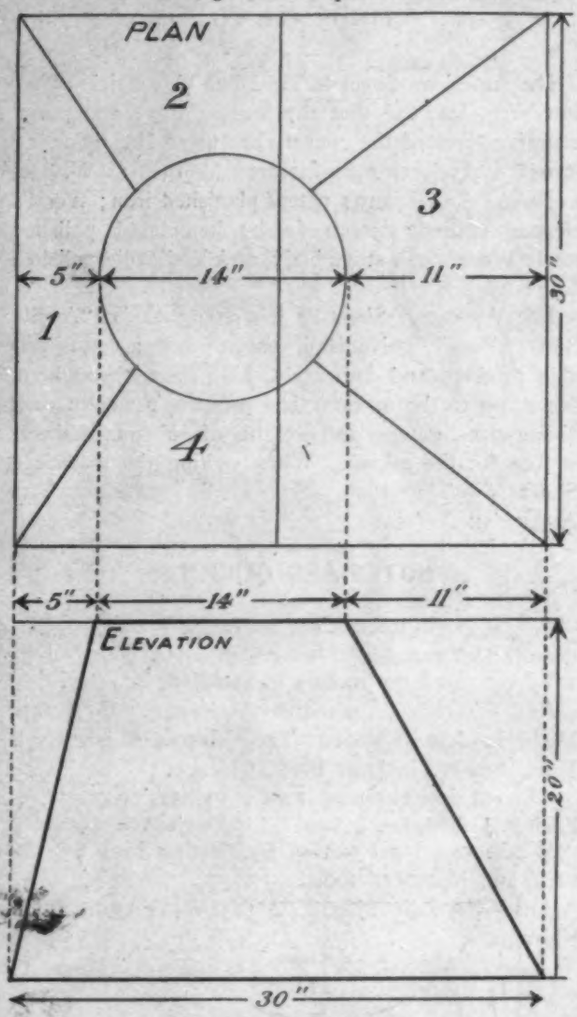
G. L. Gray.

New York, October 19, 1908.

PATTERN WANTED FOR SMOKE STACK BASE.

To The American Artisan:

I wish to be informed through the columns of The American Artisan how to lay out a pattern for a smoke stack base, 30 inches square at the bottom and



Pattern Wanted for This.

tapering to a round top of 14 inches, with a height of 26 inches. I would like this pattern to be in four pieces, as shown in the accompanying sketch.

A. G.

St. Louis, Mo., Oct. 19, 1908.

"TITELOCK" METAL SHINGLES.

The Milwaukee Corrugating Co., Milwaukee, Wis., and Kansas City, Mo., report that their "Titelock" metal shingles are coming more and more into general popularity. The side-lock of these shingles is so formed that the matching beads are absolutely straight and true to size, it is said. The outer flange is pressed to such an angle that after it is inserted in the recess of the adjoining shingle, the act of laying the shingle springs it into tight contact at both the top and bottom with the beads positively nested. The crimps or

narrow corrugations formed lengthwise of the plates insure rigidity and strength. "Titelock" metal shingles are guaranteed to be perfectly water-tight. They are easily applied and never need attention, it is said, after once properly put on the roof of a building. The Milwaukee Corrugating Co. has recently issued a booklet describing "Titelock" metal shingles which they request the trade to send for. When writing for it kindly mention THE AMERICAN ARTISAN.

PRODUCTS OF THE AMERICAN SHEET AND TIN PLATE CO.

The American Sheet & Tin Plate Co., Frick Bldg., Pittsburg, Pa., say that the leading stove and range manufacturers of the country are using the following standard products manufactured by them: W. Dewees Wood Company's patent planished iron; Wood's cleaned refined smooth finish; hammered polished steel; Wood's oak stove body, and Wellsville polished range steel.

The American Sheet & Tin Plate Co.'s "Apollo Best Bloom" galvanized sheets are a soft pliable product, and uniformly high-class throughout, according to the makers. The company's weight card giving sizes, gauges and weights of galvanized sheets is free for the asking. When writing the American Sheet & Tin Plate Co. kindly mention THE AMERICAN ARTISAN.

NOTES AND QUERIES.

MOTORS FOR BICYCLES.

From G. O. Terry, Good Thunder, Minnesota.

Where can I get motors to attach to bicycles?

Ans.—Aurora Automatic Machinery Co., 1470 Michigan Ave., Chicago; The Whipple Motor Cycle Man., 260 W. Jackson Blvd., Chicago.

BAGS FOR TINNERS' AND PLUMBERS' TOOLS.

From R. J. Slothower & Sons, 114 Hennepin Ave., Dixon, Ill.

Where can I get canvas and leather bags for tinners' and plumbers' tools?

Ans.—Republic Mfg. Co., 123 Washington Blvd., Chicago.

ITEMS.

John H. Bowers has opened up a tin shop at Mt. Vernon, Texas, doing all kinds of sheet metal work, including tank building and plumbing. He is desirous of receiving catalogues, prices, etc., of anything in the sheet metal line.

The "Gem" soldering furnace, manufactured by the Burgess Soldering Furnace Co., Columbus, O., is equipped with a cylindrical slotted burner, and is made with a galvanized iron, brass or copper reservoir. It gives off no smoke or odor, and besides being durable, it is said to be the safest soldering furnace on the market. When writing the Burgess Soldering Furnace Co., kindly mention THE AMERICAN ARTISAN.

In the new catalogue of the Delphos Mfg. Co., Delphos, O., are described Delphos B. B. galvanized sheets; Delphos corrugated, pressed-standing seam, V crimp, three V crimp, roll, and roll and cap galvanized roofings; Delphos galvanized eaves trough, conductor pipe, elbows, and roofing plates; and standard brands of solder. The Delphos Mfg. Co. requests that those who are interested in these products write for catalogue. When doing so kindly mention THE AMERICAN ARTISAN.

The Ferdinand Dieckmann Co. are calling the attention of the trade to their charcoal iron conductor elbows, with their trade-mark stamped in the metal. These elbows, they say, can be erected without refitting and solder, a great saving in labor and material thereby being effected. Charcoal iron conductor elbows are patented and are guaranteed to give absolute satisfaction. When writing Ferdinand Dieckmann Co., Station B, Cincinnati, O., kindly mention THE AMERICAN ARTISAN.

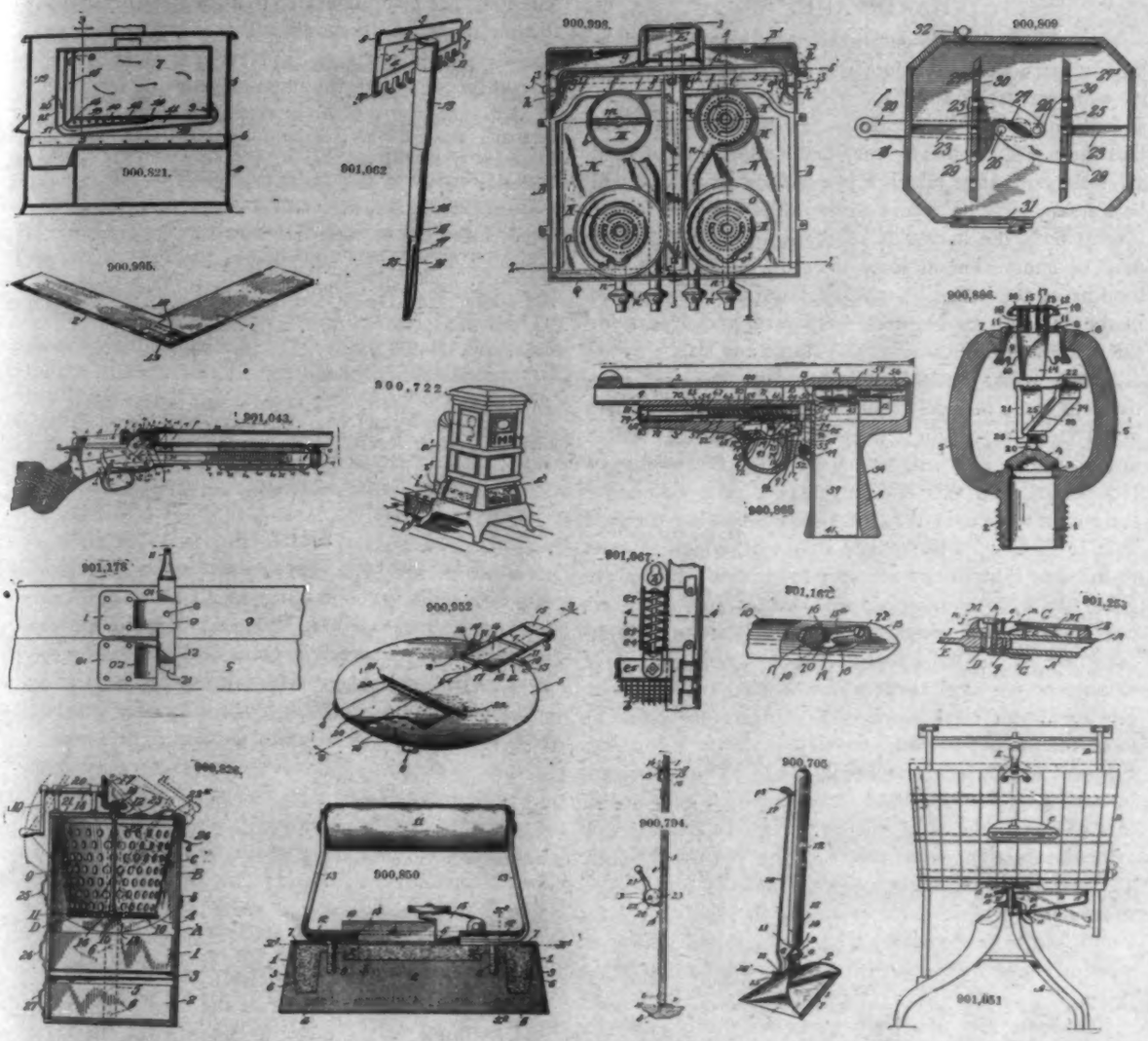
C. G. Hussey & Co., Pittsburg, Pa., announce that they carry in stock the following: Soft copper; copper gaskets; copper bottoms; soldering irons; copper nails and tacks; tinned copper; polished copper; cold rolled copper; special shapes sheared or stamped and slating nails. The products of C. G. Hussey & Co. are widely known among the trade as goods of merit, and C. G. Hussey & Co. state that consumers thereof are invariably pleased with the results attending their use. When writing kindly mention THE AMERICAN ARTISAN.

American ingot iron rust resisting sheets, manufactured by the American Rolling Mill Co., Middletown, O., are guaranteed to be 99.94 per cent pure. The manufacturers say that American ingot iron is the purest iron made in this country or abroad, and that accelerated acid tests have demonstrated the superiority of sheets of this material to charcoal iron sheets. The American Rolling Mill Co. has now ready for distribution price sheet "AA" on roofing, black and galvanized sheets. When writing for it kindly mention THE AMERICAN ARTISAN.

The extensive line of steel ceilings manufactured by F. O. Schoedinger is very fully described in the new catalogue recently issued by that concern. The patterns are said to be the latest and the work of the finest designer in the country. Schoedinger steel ceilings are well known among the trade. The manufacturer guarantees them to give the greatest measure of satisfaction, and to require no further attention when once properly applied. When writing F. O. Schoedinger, Department 3, 146-148 North Third St., Columbus, O., for catalogue kindly mention THE AMERICAN ARTISAN.

The October blotter of Follansbee Bros. Co., Pittsburg, Pa., is a very attractive one, being printed in several colors on the enameled side. The following is what Follansbee Bros. Co. say of Scott's extra coated roofing tin: "In 1878—when the imported Scott's extra coated roofing tin was first introduced—it was made with hammered open hearth base. Now, thirty years later, when it numbers among its friends practically all of the best architects and contractors, and when its sales amount to many thousands of boxes each year, we still follow the careful and painstaking Welsh methods and use hammered open hearth base exclusively." When writing Follansbee Bros. Co. kindly mention THE AMERICAN ARTISAN.

NEW PATENTS.



900,705—Dust Pan. Lee J. Chapman, Columbus, Ohio. Filed Feb. 14, 1907. Serial No. 357,407.

900,722—Deodorizing Attachment for Gas Heaters. Homer A. Gorsline and Adolph Klein, Cleveland, Ohio, assignors of one-third to Samuel Klein, Cleveland, Ohio. Filed Dec. 20, 1907. Serial No. 407,304.

900,794—Door Fastener. Mickus N. Stoffels, Medaryville, Ind. Filed June 15, 1908. Serial No. 438,560.

900,809—Washing Machine. Willie D. Whitney, Holley, N. Y. Filed Oct. 14, 1907. Serial No. 397,400.

900,821—Stove or Range. Daniel D. Berry, Springfield. Mo. Filed Jan. 22, 1908. Serial No. 412,067.

900,826—Ash Sifter. Henry S. Brewington, Baltimore, Md. Filed Dec. 9, 1907. Serial No. 405,634.

900,850—Sad Iron. James M. Harper, Chicago, Ill., assignor to the Harper Supply Company, a corporation of Illinois. Filed Sept. 19, 1904. Serial No. 225,003.

900,865—Automatic Magazine Firearm. Charles W. Louis, Springfield, Mass., assignor to Edward H. Buck, Windsor, Vt. Filed March 21, 1907. Serial No. 363,568.

900,886—Automatic Sprinkler. George I. Rockwood, Worcester, Mass. Filed Oct. 7, 1905. Serial No. 281,864.

900,952—Culinary Utensil. Leonard G. Quackenboss and Bartholomew J. Farrell, Chicago, Ill. Filed Sept. 21, 1907. Serial No. 393,898.

900,995—Try Square. John W. Fry and Carman W. Fisher, Philadelphia, Pa. Filed March 31, 1908. Serial No. 424,340.

900,998—Gas Stove. Charles F. Grady and Frank L. Grady, Buffalo, N. Y. Filed July 3, 1907. Serial No. 381,064.

901,043—Safety Gun. Orlando E. Scott, Hamilton, Ontario, Canada. Filed July 27, 1907. Serial No. 385,863.

901,051—Washing Machine. Willie De Lano Whitney, Binghamton, N. Y., assignor to the Nineten Hundred Washer Company, Binghamton, N. Y. Filed Feb. 28, 1908. Serial No. 303,503.

901,062—Safety Razor. Thomas A. Bell and Ellis J. Uhle, New York, N. Y. Filed Dec. 21, 1907. Serial No. 407,528.

901,067—Window Screen. Matthew Casson, New York, N. Y. Filed March 21, 1908. Serial No. 422,447.

901,167—Stair Carpet Fastener. Elmer E. Greene, Altoona, Pa., assignor of one-half to Charles Houston, Altoona, Pa. Filed May 11, 1908. Serial No. 432,013.

901,178—Window Lock. Guy O. Keller, Buena Vista, Va. Filed Oct. 8, 1907. Serial No. 396,486.

901,253—Pocket Knife. George L. McVey, Walden, N. Y., assignor to the Press Button Knife Company, Walden, N. Y., a corporation of West Virginia. Filed April 30, 1908. Serial No. 430,138.

Trade Report.

HARDWARE.

There has been little gain in the hardware trade during the past week. Orders for small lots are coming in with increased rapidity, but there seems to be a scarcity of large orders. It is now reasonably certain that there will not be any very great improvement until after election, after which it is expected that there will be a heavy rush of orders to the mills. As stocks are low in both the hands of retailers and jobbers there may be congestion in some lines during the last two months of the year. A marked improvement is noted in the demand for builders' hardware, and orders for this material are increasing in volume and size.

Specifications on old contracts for wire nails continue to come in freely from the mills. New business is only routine, but there is every indication that orders are piling up and will be placed after the middle of November. To this end buyers are now estimating their requirements. What business is coming forward is in small lots for immediate shipment, which is taken to indicate that stocks are at a minimum. Prices are generally well maintained, and neither manufacturers nor jobbers are disposed to make concessions. Manufacturers of cut nails report a fairly good volume of shipments on small orders for immediate shipment, but an almost total absence of contract orders. The undertone to the market, however, is slowly improving. Demand in the local market is small. The movement in barb wire is not as heavy as had been expected at this season of the year, but larger orders are expected after the election, especially from the West and South. Prices are well held, however. There is still a good movement in plain wire, especially in rush orders for small lots to fence makers. It is expected that from now on there will be an increase in the output of the mills.

The base price of wire nails at the mill is $1.95 per keg. The jobbing price is $2 at the mill for full carloads, $2.10 at the mill for less than carloads and $2.40 out of store. The base price of cut nails at the mill is $1.80 per keg. The jobbing price is $1.85 for full carloads at the mill, $1.95 for less than carloads at the mill and $2.25 out of store.

In the Chicago market wire nails are quoted as follows: Wire nails, jobbers' carload lots, $1.95; retailers' carload lots, $2; painted barb wire, jobbers' carload lots, $2.10; retailers' carload lots, $2.15, with 30 cents for galvanizing; plain wire to jobbers in carloads, $1.80, and to retailers in carloads, $1.85.

Purchases of long-handled steel snow shovels are being made by the retail trade in the northern states at prices considerably lower than those prevailing last year. They are now quoted at $2.50 to $2.75 per dozen. D-handled snow shovels are from 15 to 20 cents higher.

TIN PLATE.

The tinplate market has improved somewhat and more of the idle mills are likely to be started shortly. The mills are being operated to a greater extent than at the beginning of the month. Prices are $3.89 for 100-pound coke plates f. o. b. New York, and $3.70 at Pittsburg mills, with the independents quoting $3.65.

Am. coke tins, I. C., from store, New York:	
Bessemer steel, 107 lbs., 14x20	$4.35@4.40
Bessemer steel, 100 lbs., 14x20	4.20@4.25
Bessemer steel, 95 lbs., 14x20	4.10@4.15
Bessemer steel, 90 lbs., 14x20	4.00@4.05
Am. charcoal terne, 8-lb. coating:	
Worcester grades, 14x20, 107 lbs	4.30@4.35
Worcester grades, 14x20, 100 lbs	4.15@4.20
Worcester grades, 20x28, 200 lbs	8.05@8.10
For prompt shipment, f. o. b. mill:	
Coke, tins, 14x20, I. C	3.85@3.90
Coke, tins, 14x20, 100 lbs	3.70@3.75
Coke, tins, 14x20, 95 lbs	3.65@3.70
Coke, tins, 14x20, 90 lbs	3.60@3.65
Charcoal, terne, 20x28, I. C	7.30@7.35
Charcoal, terne, 20x28, 200 lbs	7.00@7.05

Usual difference for odd sizes and weights.

SHEETS.

There is very little improvement in the sheet market, and the mills are operating at about 50 per cent of capacity. There is a fairly good demand for corrugated sheets. There is a good deal of shading in the prices of galvanizing sheets, ranging from $1 to $3.

The following are New York prices for 500-bundle lots and over, f. o. b. mill:

	Galvanized. Net.
No. 30	$4.05
No. 29	3.80
No. 28	3.65
No. 27	3.35
Nos. 25 and 26	3.15
Nos. 22 and 24	2.95

COPPER.

There is a better feeling in the copper market, and the entrance of the government into the market as a large buyer has served to show how strong the market for actual copper really is. The London speculative market has declined about 10s per ton during the week, but the tendency is in the other direction on this side of the water. The government sales are reported to have been made at 13½@13¾ cents, but the leading producers are still holding Lake firmly at 14 cents. Members of the trade are looking for a resumption of buying immediately after election, and if such proves to be the fact it will not be difficult to dispose of the moderate accumulations now being made by the leading producing companies. The electrification of the suburban business of the various steam railroads promises to give the outlet for a very large amount of copper during the next few years, and once the movement is fairly under way copper men are expecting one of the biggest booms ever seen in the trade. Sheet copper is firm and unchanged, the base price being 18 cents. There is no change in yellow metal, quotations being 17 cents for dimensions, 15 cents for sheathing and sheathing nails, 16 cents for slating nails and 17 cents for keel and stem metal.

The base price on copper wire is unchanged at 15¼ cents.

PIG IRON.

The pig iron situation remains practically unchanged, though there seems to be a very strong belief that there will be a decided improvement after election. In fact there is now considerable inquiry for iron to be delivered after election, and it seems to be the general opinion that the result of the election will be such as to encourage the business interests, and that shortly after, if not at once, the good effect will be made manifest through a general increase in the demand for foundry iron. Just now the bulk of the inquiry is for 1909 delivery, and prospective buyers are showing a great deal of interest in the matter of prices. The furnacemen are not disposed to sell very freely at the current quotations, and therefore there is only a moderate volume of business being done. The makers of pig iron believe that the market is coming their way soon after the first of the year, and think it is not good policy to sell too large a proportion of their future product at current prices. An unusually small tonnage has been sold for first quarter delivery, for usually at this time the first quarter needs have been provided for, and often the first half has been entirely contracted for. Locally the demand is very quiet, though some small lots are being disposed of to foundrymen who have been buying from hand to mouth and who have been obliged to come into the market again for the iron necessary to keep their plants running. In the matter of prices, there is a very firm feeling, especially in the South, where most of the leading furnaces are holding pretty firmly at $13 a ton, though sales are still being made at $12.50 a ton. Some second-hand iron is reported to have been recently sold by a syndicate of speculators at $12@12.25, but this was done in order to get money to meet pressing obligations, and does not indicate any weakness at furnaces. Alabama iron may therefore be said to be steady at $12.50@13 f. o. b. Birmingham. Virginia iron is quoted at $18.50 @19, delivered on the wharf in Boston, 83 cents a ton being added for all-rail freight. There is no change to be noted in Pennsylvania iron, the current quotation being $17.50@18.25, New England delivery.

CHICAGO MARKET.

Lake Superior charcoal	$19.50
Northern foundry No. 1	17.00@17.50
Northern foundry No. 2	16.50@17.00
Northern foundry No. 3	16.00@16.50
Southern foundry No. 1	17.35@17.85
Southern foundry No. 2	16.85@17.35
Southern foundry No. 3	16.35@16.85
Southern foundry No. 4	15.85@16.35
Southern No. 1, soft	17.35@17.85
Southern No. 2, soft	16.85@17.35
Southern Gray forge	15.60@16.10
Southern mottled	15.35@15.60

PITTSBURG MARKET.

No. 1 foundry	15.60@16.10
No. 2 foundry	15.25@15.50
Gray forge	14.25@14.50
Bessemer	15.90@16.15
Basic	14.90@15.15

BIRMINGHAM MARKET.

No. 1 foundry	13.00@13.50
No. 1 soft	13.00@13.25
No. 2 foundry	12.50@12.75
No. 2 soft	12.50@12.75
Gray forge	11.00@11.50

Rogers, Brown & Co., Cincinnati, will say in their weekly report: "The market is quiet, current business of about the same volume as has been going and consumption steadily improving. The movement of iron on old contracts is being urged and prices are about the same. There is absolutely no change on the small lots which are being sold for prompt shipment, and the few inquiries for delivery next year are being considered entirely apart and as special propositions by themselves. There are one or two fair inquiries out, which will probably not be closed for several days.

"It is remarked in the East that there is some improvement in inquiry and sales, especially in the steel making lines.

"Furnaces in the South and through the Middle West are holding firmly and there is expectation that this will continue until some time next month, when the disposition as to business and figures for next year can be more readily secured.

"Coke is quiet but steady. The movement on contracts is good and little new business offering just now."

SEEDS.

The Leonard Seed Company, Chicago, say in their weekly report:

"The general conditions in the seed trade as regards seed crops, remain practically unchanged at this date. The continued dry weather has certainly not improved crops any, and may have done some additional damage. Reports on beet, carrot and radish, seem to indicate that the crop has been materially damaged, and that the product will be cut to quite an extent. Onion, lettuce and that class of seed will probably be in the neighborhood of three-fourths of a crop. Michigan grown radish was damaged quite largely by the extreme dry weather which prevailed just before harvest.

"The indications are for one-half of a normal bean crop, on the average, although some varieties may run as high as 75 per cent. The Green Pod varieties seem to run shorter than the Wax, which is rather an unusual condition. The weather conditions all through the entire season have been most unfavorable for the production of a good crop. The continued wet weather which prevailed early, prevented the farmers from fitting their land properly, as well as preventing the beans being planted to best advantage. Then, just as the blossoms were forming, the hot, dry weather came on, blighting many plants at that time, and continuing through the filling season, caused many of the pods to mature only one-half the beans which they contained. The shortage in beans may be made up to a certain extent, however, by stocks which have been carried, and are on hand at this time. Such varieties, however, as Burpee's Stringless, Valentine, Detroit Wax, and Improved Golden Wax are probably quite short.

"The pea situation, which has been dismal enough all season, has become even worse than early estimates showed. The estimates made in August, gathered from as many sources as possible, seemed to show that Alaskas, Horsfords, Advancers, Abundance and peas of that class, would be from 40 to 50 per cent of a crop, but at this time, some houses are reporting their deliveries as low as 25 per cent. Dwarf Telephone, Gradus, Thomas Laxton and kindred sorts, were reported early at 40 to 50 per cent, and will probably range nearer the 40 per cent than the 50 per cent mark, when all crops are in. Telephones, Duke of Albany, Alderman, Champion of England, 35 to 60 per cent of a crop. Some growers today are reporting this class of peas at from 35 to 40 per cent. It would seem as though the prices this year on almost the entire list of peas will range higher than last year. Sales were reported on Alaskas, Horsfords and Advancers, in carload lots recently at from $5.00 to $5.50 per bushel. Owing to the many different sections in which we grow our own crops, we are delivering 60 per cent on Alaskas, Horsfords and that type, while on some others we are delivering in full. Scattering our crops over a greater area, selecting those localities which are best adapted to the crop, we intend growing and not confining ourselves to one or two locations. We are not dependent on the local conditions which prevail at one point, but have a much better chance of getting a more nearly average crop than those who do confine themselves to one place.

"Onion sets at Chicago were considerably less than the normal crop, occasioned by the dry weather, the stock running exceptionally small. Prices undoubtedly will range exceedingly high before the season is well on."

At Chicago on October 20 timothy was steady. October closed at $3.50 bid, and March $3.75 bid and $3.82½ asked. Country lots, $2.30 to $3.40. Clover seed was firmer at $7.75 for October and $6.00 to $7.50 for cash lots.

At Toledo clover seed was cash, $4.72½; October, $4.70; December, $4.77½; March, $4.90; No. 2, $4.52; No. 3, $4.40; rejected, $4.25. Alsike, prime, $8.80.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 00
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 5
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$17 00@$17 50
North'n Fdy., No. 2	16 50@ 17 00
North'n Fdy., No. 3	16 00@ 16 50
Southern Fdy., No. 1	17 35@ 17 85
Southern Fdy, No. 2	16 85@ 17 35
Southern Fdy., No. 3	16 35@ 16 85
Southern Fdy., No. 4	15 85@ 16 35
Southern No. 1 Soft	17 35@ 17 85
Southern No. 2 Soft	16 85@ 17 35
Southern Gray Forge	15 60@ 16 10
Southern Mottled	15 35@ 15 60
Lake Sup. Charcoal	19 50
Southern Silveries, 4% Silicon	17 85@ 18 35
Southern Silveries, 5% Silicon	18 35@ 18 85
Southern Silveries, 6% Silicon	18 85@ 19 35
Jackson Co. Silveries, 6 per cent	19 90
Jackson Co. Silveries, 8 per cent	20 40@ 20 90
Jackson Co. Silveries, 10 per cent	21 90
Malleable Bessemer	17 00@ 17 50
Standard Bessemer	17 65@ 18 15
Alabama Basic	16 85@ 17 35

BLACK STEEL SHEETS.

No. 12	per 100 lbs.	$2 20@$2 30
No. 14	per 100 lbs.	2 25@ 2 35
No. 16	per 100 lbs.	2 35@ 2 45
Nos. 18-20	per 100 lbs.	2 60@ 2 65
Nos. 22-24	per 100 lbs.	2 65@ 2 70
No. 26	per 100 lbs.	2 70@ 2 75
No 27	per 100 lbs.	2 75@ 2 80
No 28	per 100 lbs.	2 85@ 2 95

GALVANIZED

No. 10	per 100 lbs.	$3 05@$3 10
Nos. 12-14	per 100 lbs.	3 05@ 3 10
No. 16	per 100 lbs.	3 05@ 3 10
Nos. 18-20	per 100 lbs.	3 15@ 3 25
Nos. 22-24	per 100 lbs.	3 30@ 3 35
No. 26	per 100 lbs.	3 50@ 3 55
No. 27	per 100 lbs.	3 70@ 3 75
No. 28	per 100 lbs.	3 90@ 4 00

POLISHED SHEET STEEL.

No. 24	per 100 lbs	$4 90
No. 26	per 100 lbs.	5 00
No. 27	per 100 lbs.	5 10
No. 28	per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20		$3 05
" "	No. 22-24	3 10
" "	No. 25-26	3 15
" "	No. 27	3 20
" "	No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, "A" $10.20, "B" $9 20

PATENT PLANISHED SHEET STEEL.

Dickey Planished Sheet Steel....8½c

SOLDER.

XXX Guaranteed ½ & ½	per lb. 18 c
Commercial ½ & ½	per lb. 17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks	case, per cwt. $7 15
300 lb. Casks	per cwt. 7 15
Sheets	per cwt. 7 15

COPPER.

Copper sheet, 100 lbs. over, base...17c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	4 c
Bar	4 c
National (White) brands (in less than 100 lb lots), per lb	8½c
Sheet.	
Full coils	per 100 lbs. $9.00
Cut coils	per 100 lbs. 9 50

HARDWARE.

ADZES.

Carpenters'.	
Plumbs	40%
Coopers'.	
Barton's	20%
White's	15%
Railroad	
Plumbs	40%
Ship.	
Plumbs	40%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.	
P. L. Waterproof, 1-10s	40c
G. D.	35c
Musket	60c
Shells; Loaded—	
Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%
Union Metallic Cartridge Co.:	
New Club, Black Powders	46%
Nitro Club, Smokeless Powders,	40 & 5%
Arrow, Smokeless Powders	40 & 10 & 10%
Winchester:	
Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%
Gun Wads—per 1,000.	
Winchester Gun Wads	15%

Powder.		Each.
DuPont's Sporting, kegs		$ 50
" "	½ kegs	2 50
" "	¼ kegs	1 40
Dupont's Sm'k'less	50-lb. drum	22 45
" "	25-lb. kegs	11 30
" "	12½-lb. kegs	5 80
" "	6¼-lb. kegs	2 97
"	1-lb. cans	15
Shot.		
Drop shot, sizes smaller than B, 25-lb. bags, per bag		1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag		2 20
Buck Shot, 25-lb. bags, per bag		2 20
Chilled Shot, 25-lb. bags, "		2 20

ANCHORS

Expansion Screw Anchors 10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper.....33⅓%

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch, per doz.	12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per doz.	6 25
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-12½%
Snell's " " "	40-5%

AWLS.

Brad.		
No. 3 Handled	per doz.	$0 40
No. 1050 Handled	"	80
Shouldered, assorted, 1 to 4,	per gro.	$1 20
Patent asst'd, 1 to 4	"	85
Harness.		
Common	"	95
Patent	"	90
Peg.		
Shouldered	"	1 20
Patent	"	60
Scratch.		
No 1 handled	"	4 80
No. 15, socket handled	per doz.	1 25
No. 7 Stanley		1 80
Sewing.		
Common	per gro.	90
Patent	"	90

AXES.

Boy's Handled.		
Lippincott, 3 lb	per doz.	$6 00
Falls City	"	6 00
Broad.		
Plumbs, West, Pat		33⅓%
" Can. Pat		40%
" Firemen's (handled)	per doz	$1; 75
Plumbs, Miners' (handled)	"	6 75
Single Bitted (handled)		
Gladiator, 3 to 4 lbs,	per doz	$11 00
Flint Edge " "	"	9 25
Standard " "	"	9 25
Elec Chopper, Forest Clipper		10 50
Perfect Premier "	"	10 00
Crown "	"	7 00
Single Bitted (without handles)		
Gladiator, 3 to 4 lbs.	per doz.	$6 50
Flint Edge. "	"	7 00
Standard "	"	7 00
Electric Chopper "	"	8 25
Perfect "	"	7 75
Crown "	"	5 25
Double Bitted (without handles).		
Gladiator, 3 to 4 lbs.	per doz.	11 50
Flint Edge. "	"	9 75
Perfect "	"	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs: advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Prary's	40%
Pelouze	20%

BARS, CROW.

Pinch or Wedge Point..per cwt. $3 75

BASKETS.

Clothes.		
Small Willow	per doz.	$7 00
Medium "	"	8 75
Large "	"	10 50

Galvanized Iron.	½ bu.	1 bu.	1½ bu.
Per doz	$4 75	6 50	8 00

BEATERS.

	per doz.
Carpet.	
No. 10 Coppered Spring Wire	$0 90
No. 12 Spring Wire	1 10
No. 10 Preston	1 10
Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 40
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch	per doz. $8 50
10-inch	" 10 50
Moulders'.	
12-inch	" 12 50

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base	per doz. $5 00
Cow.	
High Grade	60%
Kentucky	65&10%
Door.	Per doz.
New Departure Automatic	$6 00
Rotary.	
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00
Hand.	
Hand Bells, polished	50&5%
White Metal	40%
Nickel Plated	50%
Swiss	40&23½%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%
Farm, lbs. 40 50 75	100
Each $1.25 1.60 2.35	2.85

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	80%
Brass	70&10%
Brass plated	75&5%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Triumph	50&5%
Ford's Ship	40&10%
Irwin	50%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	25%
" " Large " $26.00	25%
Irwin Car	45%
Ford's Ship Auger pattern Car	40&10%
Center	40&10%
Countersink.	
No. 18 Wheeler's	per doz. $1 25
No. 20 " "	" 1 75
American Snail head	" 75
" Rose "	" 90
" Flat	" 75
Mayhew's Flat	" 1 25
" Snail	" 1 25
Dowell	
New Jennings	40&10%
Gimlet.	
Standard Double Cut	60%
German Pattern	per doz. $0 60
German	" 65
Gouge	" 80
Spoon	" 80
Countersink	" 1 00
Reamer.	
Jenning's Square	" 2 50
Standard Square	" 75
German Octagon	" 75
Screw Driver.	
No. 7 Common	" 80
No. 1 Triumph	" 1 25
No. 2 "	" 1 —
No. 240 Shepardson's	" —
No. 1 Smith's	" — —

BLACKING, STOVE. (See Polish).

BLADES, SAW.

Butchers'.
Standard, ½ & 1½-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50
Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%
Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%
Tackle.
Iron Strapped.....70%
Com. Steel.....60%

BOARDS. (New List)

Slate.....50&10%
Wash.
Globe, single.....per doz. $2 50
Globe, double..... " 3 25
Peace Maker..... " 3 00
Crystal Glass..... " 4 00
Brass King..... " 4 00
Nickel Plate..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 50
No. 3, lead..... " 2 00
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 65

BOLTS.

Carriage, Machine, etc.
Carriage, ½x6 and sizes smaller and shorter.....70&10%
Carriage, sizes larger and longer than ½x6.....60&5%
Machine, ½x4 add sizes smaller and shorter.....70&10%
Machine, sizes larger and longer than ½x½x4.....60&5%
Elevator.....50-10&5%
Plow.....60&10%
Stove.....80&10%
Tire.....75%
Wagon Box Strap.....70%
Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%
Barrel.
Cast.....60%
Wrought.....
Wrought, bronzed.....50%
Flush.
Wrought.....50&10%
Spring.
Wrought.....
Wrought, heavy.....
Square.
Cast.....50&10%
Wrought.....

BORERS.

Angular.
Miller's Falls.....per doz. $13 00
Bung.
Dos.
Enterprise Mfg. Co.'s No 1... $14 00
" " " No 2.. 18 50

BOXES

Mail, No..... 1 2 10
Per doz.....$3.50 5.00 17.50
Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's.....50&10&10@50&10&15%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 08..... 2 75
" No. 010..... 2 85

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 60
Shelf.
Cast Iron, bronzed.....50-10&5%
Clover Wrought Steel.....70&10%
Clover Folding.....70%

BROILERS.

Wire.....70%
No. Crown, Self-basting, 20 qts.. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star..... " 5 00
IXL..... " 6 75
Well.
Galv'd Qts..... 10 12 14
Per doz.....$2.90 $3.25 $3.40
Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....30%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%
Wrought Brass (New List).....40%
Wrought Steel, Bright.
Wrought Steel, Japanned.
Nos. 731 and ....70&10%

CALIPERS.

Double.....65&5%
Inside and Outside.....65&5%
Wing.....70%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75
Toe.
Shoemberger.....per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.
Gallons..... 20 30 40
Each..... $4.25 $5.00 $6.25
Milk.
Holstein.
Nos..... 300 301 302
Gals..... 5 8 10
Per doz.....$26.00 $27.00 $29.00
Chicago Pattern.
Nos..... 105 108 110
Per doz.....$19.00 $21.50 $23.00
Iowa Pattern.
Nos..... 408 410
Per doz..... $23.50 $24.50
New Elgin Pattern.
Nos 705 708 710
Per doz.....$25.00 $27.00 $28.00
Burn Pattern
Nos..... 700 701
Gals..... 8 10
Price..... $2.40 $2.65

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....70%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's.
Nos..... 1 2 3
Per doz.....$5.60 $5.75 $6.25
Nos..... 4 5 6
Per doz.....$6.75 $9.50 $10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85
Bright Ox Chains.
⅞-in. $7.25; ⅞-in. $5.45 per 100 lbs.

Cable Coil Chain.
Inch..... 5/16 ⅜ 7/16 ½
Per 100 lbs.$10.80 $8.00 $7.00 $6.20
Inch..... 9/16 ⅝ ¾ ⅞
Per 100 lbs.$6.00 $5.90 $5.75 $5.65
Inch..... ⅞ 1 1 1¼
Per 100 lbs.....$5.55 $5.55 $5.65
Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.
Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%
Halter Chains.
American, new list.....33⅓%
German.....60%
Niagara, new list 40%
Brown's, " 40%
Picture Chains.
Light Brass, 3 ft.....per doz. $0 65
Heavy Brass, 3 ft .... " 1 00
Pump Chain
Galvanized, per 100 lbs.....$5 50
Safety Chain.
Brass.....60%
Special Steel Loading Chain.
Inch..... ½ 9/16 5/8
Per 100 lbs.....$16.00 $13.50 $12.50
Stretcher Chains.
⅞-in. $8.50; ⅞-in. $7.75 per 100 lbs.
Tie-Out Chains.
Brown's.....70&5%
Trace Chains.
Western Standard.
6|— 6-2.....per pair 30c
6|— 8-2..... " 34c
6|— 8-3..... " 33c
6|—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.
Wagon Stay Chains.
Inch..... ½ 9/16 ⅝
Per 100 lbs.....$6.50 $6.00 $5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 65c
White..... " 55c
Common White School Crayon..... " 8c

CHARCOAL.

In bags.....per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.
Inches..... 10 12 14
Round per doz....$2.10 $2.25 $2.75
Flat " ... 2.85 3.60 4.20
Cold.
Good quality, ½ in. and larger.....per lb. .12c
Smaller size per doz.....
Socket, Framing and Firmer.
Clover.....75&10%
Tanged, Firmer.
With handles..... 30&5%
Choppers, See Cutters, Meat.

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood.
Gal..... 5 7 10
Each.....$3.90 $4.60 $4.85
Belle, Barrel.....65&7½%
Common Dash, Gal. 4 5 6
Per doz..... $7.75 $8.50 $10.50
Union, Gal..... 5 7 10
Each.....$3.65 $3.90 $4.75

CLAMPS.

Adjustable.
Martin's.....30%
Carpenters'.
Steel Bar.....25%
Hose.
Sherman's, brass, ½-in., per doz.. 42c
Double, brass, ½-in., " 90c
Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $7.50.

CLAWS, TACK.

Cast, wood hdle..... per doz.45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 90

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%
Pot.
Wire.....per doz. $0 55
Side-Walk.
Steel.....per doz. $3 25
XLCR .....65&5%

CLEAVERS

Family.
Griffin, Inch..... 6 7 8
Per doz.....$5.50 $6.75 $8.25
Royal.....per doz. 3 25
Butchers.
Plumbs.....25%

CLEVISES

Malleable.....5½c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%
Damper.
Standard.....per doz. 65c
Troy..... " 38c
Hame..... " 17

CLOTH.

Emery.
Star.....50%
B. & A.....50%
Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll... 2 75
4 and 5..... " .. 3 00
6..... " .. 3 25
7 and 8..... " .. 3 75
Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 25

COCKS AND FAUCETS.

Compression Plain Bibbs...60, 10&5%
Lever Bibb Cocks.....60, 10&5%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list)...60, 10&5%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$3.00-4.20
Petroleum Faucets .....75&5%

COLLARS, STOVE PIPE.

Inches..... 5 6 7
Plain Tin..per gro.$1.90 $2.40 $3.50
Japanned Tin " 2.60 3.00 4.25
Lacquered Brass" 3.00 3.50 4.25

COMBS, CURRY.

Nos... 000 11 15 30 80 108
Per Doz..$.37 .60 1.00 .90 1.15 .80
Nos... 200 320 380 522 620 1400
Per Doz.$1.05 .85 1.35 1.20 .75 1.40

COMPASSES.

Carpenters'.....60—10—10%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 30c
1½ lb.....31c 2 lb... " 29c
3 lb and larger..... " 26c

CORD.

Picture
White Wire (new list) .....85&10%
Sash.
Monarch Braided Flax...per lb
Silver Lake. white. 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 29c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&20%

COUPLINGS, HOSE.

Brass.....per doz. $
Brass Plated..... " 55

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$60 [illegible]

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3½c

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½%
Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.00
Slaw and Crout.
3-knife Crout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife Slaw..... " 2 25
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American..... 50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant..... 33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in. 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12..... " 2 10
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Patter.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet.....50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally delivered.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65
Corrugated Conductor.
Discount.....75&10%
Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished, " .. 1.40 1.70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size.....5-lb. pkgs. ½ kegs. kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 2c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 00
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Feeder.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine.....60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2 30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20

GAUGES

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single..... 90&20%
Double.....90&25%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12 c
A White..... " 15 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 25
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 50c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.65
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....50&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .90 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs .....30&5%
5 lbs. and over.....30&10%
Masons'.
Single and Double Face.....60&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 38
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....50&10%
Drifting Pick.....50&10%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....[illegible]%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eave Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....60-10&5%
Cast Claw.....per doz. $1 10@1 35
Cast Shingling.... " $0 85@1 10
Germantown.....30%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wensleman's No. 1.....per doz. $9 00
Wensleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 08
Gate.
Clark's..... 1 2 3
Hgs & Lch. . doz. $2.50 2.90 4.00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $6 00
Lead's..... " sets 6 75
Superior..... " prs. 9 50
Spring.
American.....30%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $8 00
Oxford.....30%
Wrought Iron
New Lists .....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3 40
Screw Hook and Eye.
⅛ in.....per 100 lbs. $6 75
¼ in..... " " 7 75
½ in..... " " 9 75

HOES

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 6 8 10 12
Per doz..... $1.35 1.65 1.75 2.30
Humason & Beckley's . per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle . per doz. $7 00
Chain.
Inch... .. 1/8 & 5/32 3/16 7/32 1/4
Per 100...$7.00-8.10 9.75 11.50 12.00
Clothes Lines.
Japanned ..... per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron . . . . per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, unpolished, per doz. $1 50
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50% @50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring .....per lb. 5½c

HOOPS, TUB.

Elastic . . . per case of 2 doz $1 50

HOSE, GARDEN.

				Coupled, per ft.
Heron, 3 ply-½" guar. press			55 lbs.	7½c
Crane..	"	"	" 75 "	8½c
Falcon	"	"	" 95 "	9½c
Eagle	"	"	" 120 "	10½c
Condor	"	"	" 150 "	11½c
High Test	"	"	" 200 "	12½c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.			400 lbs.	11½
Special	"	"	" 300 "	9½c
Leader	"	"	" 100 "	7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's,
No. 50 J. Enterprise, per set 93
No. 55 J. " " 90
No. 50 T. " " 1 00
No. 55 T. " " 96
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest . . " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....40%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80

Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Boot Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 60
Common, Double..... " 50
Streeter, 4-Blade..... " 1 20
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander's..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 90
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2½-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Dietz & Hanes' . . ..net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
60-ft. Cotton..... " 1 15
60-ft. Braided Cotton. " 25

LINING, STOVE.

See Bricks .....per crate. 42c

MACHINES.

Boring.	Without Augers	With Augers
Angular.....per doz.	3 00	4 40
Upright..... "	2 60	4 00
Leather Riveting.		
Chicago, Pomeroy....per doz.	$9 00	
Excelsior..... "	2 00	
Handy..... "	2 00	
Little Giant..... "	3 00	
Pony, Pomeroy..... "	7 20	
Washing.		
Winner.....per doz.	54 00	
Keystone..... "	54 00	
U. S. Steel..... "	60 00	
Advance, f.o.b.Chicago "	24 50	

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs.....	10	12	16	18
Per doz....	$4.00	4.50	5.25	5.60
Wood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	¼ pk.	1 pk.	bu.
Galvanized, per doz.	$2.25	3.00	3.55
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....40&5%
Second Quality.....50&5%

MILLS, COFFEE.

Enterprise.....25%
Parker.....40-12½&2½%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie..... per doz. $3 15
Handled Cotton.

Pounds.....	¾	1	1½	2
Per dozen....	$2.00	2.35	2.65	3.25

MOWERS, LAWN.

Gladiator—B. B.			
Inches.....	16	18	20
Each.....	6.50	7.25	8.00
King Universal—B. B.			
Each.....	5.25	5.75	6 00
Inches.....	14	16	18
Big Giant.....	3.50	3.90	4.25
Little Giant.....	2.50	2.65	2.75

Philadelphia.
All Styles, except A & E, 60, 10&10%
Style A.....50&10%
Style E, High Wheel....60, 10&10%
Drexels.....40%
All Day .....Net Price

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 28
Carload Lots..... 2 18
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf ..... per lb., net, 10½c
Picture.
Brass Heads.....35%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .80,10&2½%
Galvanized after weaving.....80&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.21
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per dos. $3 96
Magic..... " 3 60
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.

In	¼	5/16	⅜	7/16	½	⅝
lb	9½c	8c	6½c	5½c	5½c	4½c

Square Tapped.

In.	¼	5/16	⅜	7/16	½	⅝
lb.	12½c	10½c	8c	7½c	6½c	6½c

For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin . . . .per dos. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.

Inches.....	10	12	14
Flat.....per dos.	$2.85	3.60	4.15
Round.... "	2.10	2.25	2.75

Can.
Delmonico .....per dos $1 20
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per dos. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.

Galv'd, qts.	14	16	18	20
Per dos.....	$3.75	4.00	4.75	5.25

Water.

Galvanized... qts.	10	12	14
Per doz.....	$1.95	2.30	2.45

Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,

Nos.....	1	2	3	4
Per doz....	$4.75	5.75	6.50	7.50

Neverburn . . 4.00 4.50 5.50 6.00
Savory, No. 290.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... " 58
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 00
Rag..... 0 00

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel,

Inches	6	8	10	12
Per doz	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 00
Spiral..... " 1 00

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	70&10%	50&10&2½%
Pittsburgh	75&10&5%	60%
Central	75&10%	60%
Northwestern	75&7½%	60%
Western	70&12½%	50&12½%
Tennessee	70&10%	50&12½%
Southern	70%	50&12½%
Southwestern	70%	50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils .....per lb. 7½c
Cut coils..... " 7½c
Stove

Acme—Inches	5	6	7
Smooth, per jt	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished	14½c	15½c	18 c
Planished	28 c	31 c	35½c
Made-up—Inches	5	6	7
Smooth	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c
Yale Patent Lock Pipe—Stove.

Blue Steel:	5"	6"	7"	7"to8"
	Cents			
Battle Axe Blue	7	7½	9½	10½
Can't Slip "	7½	8½	10	11
Peerless "	7½	8½	10	11
Duplex "	10	11	13	14
Yale, Rus. Fin	15	16	17	18
Duplex Planished	29	31	37	38
Galvano, Gal	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Grating made-up pipe extra.
Wrought Iron Gas Pipe.
¼@½-in., black.....discount, 60%
¾@1-in., black..... " 60,10&5%
1¼-in. to 6-in, black... " 70%
7-in. to 12-in., black... " 62½%
¼@½-in., galvanized.... " 42%
¾@1-in., galvanized.... " 50%
1¼-in. to 6-in. galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench .....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Button's—Ins.. 4½ 6 8 10
Per doz..... $2.75 3.35 4.15 5.15
Button's Pattern.

Inches	4½	6	8	10
Per doz	$2.25	2.75	3.25	4.25

Cutting.
Bernard's.....30%
Lodi.....50%
End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....50%
Fencing.
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%
Gas.—Inches.. 7 8 10 12
Per doz..... $3.00 3.50 4.50 5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common .....60&10&10%
Cook's.....40%
Davis' Iron 25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per dos. $4 50

POLISH.

Metal.
A-B Oil Metal Polish, 4-oz. bottles, 3 doz. case, per gr. $9 00
1-gal. can..... 00
White Silk, half pints, per doz. $2 00
White Silk, 6-oz. cans, per doz. 1 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro 5 00
Stove.
A-B Polishes.
Liquid Stove Polish.
3 doz. in case.....$2 25
6 " " .....gr., 9 00
Fireproof Stove Polish, 3 and 6 doz. in case.....gr., 12 00
Liquid Waterproof Stove Polish, 10-oz. cans, per gro., 12 00
Oil Paste Polish.
6-oz. cans, 3 doz. case..... 2 25
1-lb. " 3 " " 3 75
5-lb. " per can..... 50
Dry Powdered Stove Polish.
5-lb. box..... 75
100-lb. bbls.....per lb. 12
Powder Polish. 3 doz. 6 do. 12 doz.
$2 25 $4.50 $9 00
Water Paste Stove Polish, ¼-lb. boxes, 3 doz. case.. per gro., 12 00
Black Eagle, 1-lb. cans, pr gr, $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 6-oz. cans... " 75
Black Jack, ½-lb. cans. " 9 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 30
Stew-qt..... " 3 75

POTS, FIRE.

Clayton & Lambert's,each,$4 75@6 25
Slate City.....each, 6 25
Stem.....each,$6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Vater's Improved..... " 80%

PULLERS.

Stump.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant ..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in. pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 16
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.
Nos..... 1 2 3 4
Each..... $1.00 1.15 1.30 1.70
Spray.
Blizzard.....per dos.$14 50
Cyclone, tin..... " 2 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per dos $2 25
Machine.....per lb 15
Saddlers'.
Common .....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 35

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½c
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2 75
Jumbo, 36 teeth..... " 5 25

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

Tuttle & Bailey Registers and Borders

(All Sizes)

Japanned, Bronzed and Plated...70%
White Porcelain Enameled...50&10%
Solid Brass and Bronze Metal....40%
Single Valve (Baseboard and Sidewall).....70&10%

REGISTER FACES

Tuttle & Bailey

Japanned, Bronzed and Plated
4x6 to 14x14.....70%
14x14 to 38x42.....75&10%
Heavy Round Gratings.....75&10%
White Porcelain Enameled...50&10%
Solid Brass or Bronze Metal.....40%

RINGS.

Bull.

Copper	2½ in.	3in.
Per dos	$1 10	$1 40
Rea's Improved Self-Piercing copper, pr dos	2 00	....
Steel, per dos	85	95
Nickel plated	1 35	....

and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 45
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils.. " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality ..... 12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb.15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....35%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per dos $1 35@1 60
Disston's .....%25
Cross-Cut
Disston's.....65%
Dehorning.
Disston's.....per dos. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos 5, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprise, hand.....per dos. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling 25%
One Man.....50%
Panel
Brown's 30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's 35%
Disston's 25%
Wood
Common.....per dos. $4 50
Clover Leaf..... " 4 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 12 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel . . . per doz , 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea..	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in	1	1½	1½
	$3.50	4.00	4.75

Wood, white maple...per dos. $3 50
Hand—Wood.....10%
Hand Rail.....60&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial

Nos ..	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
P. H. Jap'd.....82½%
P. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 00
Clipper, grass..... " 8 25
Clover Leaf Dutchman. " 7 50
Honest Dutchman..... " 7 50
Be Ve Be..... " 7 50

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond..... per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
California Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip.,doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.00

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal.
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c

Reliance.
Per doz ...light, $1.35; heavy, $2 50
Star.
Per doz ....light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $2.30 per doz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 00
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb . . .9½@9¾c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 00
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60%@60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6¾
Oil—Unmounted.
Arkansas Hard.....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 33
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per dos prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Blued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 22c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $3.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker..... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood Ex.
Nos..... 0 2 1 large
Per dos.....$5.00 6.00 7.00 9.50
Dowell.
Per dos..... 5.35 6.35 7.00 9.50
Cedar.
Per dos.... 6.10 7.10 7.90 10.80
Indurated.
Per dos..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per dos.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 23c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " " cones.....25c
4 " " " " " 25c
India Hemp, ½-lb. balls 19c
" " ½-lb. " 18c
" " ½-lb. " .....doz. 75c
2-ply Jute, ½-lb. " 14c
3-ply Jute, ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 28c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " " Silver Finish, in hanks...37c
Fodder or Lath.
120 strand.....6½c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide,
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.....18&20%
Parker's Victor.....15%
Parker's Combination.....75%
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots,
Tinned..... .....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb.:
In. ⅝ ¾ ⅞ 1 1⅛ 1¼ 1½
⅝c 6½c 5c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ⅝ ¾ ⅞ 1 1⅛ 1¼ 1½
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10⅝
Saw..... " 8⅝

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 00

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b. Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 30 00
Klondike Steel Tray.. " 28 00

WHEEL BARROWS.

Common Railroad. ...per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 30 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads . . per 100 lbs. $2.33 $2.63
Less than car " 2.43 2.73
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'cal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1 .....85cnet
Always Ready.....50%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%

WRINGERS.

No. 22, Guarantee....per doz. $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
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Columbus Bolt Works, Columbus, O

Ceilings

Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedley-Voshardt Co., Chicago, Ill
Keighley Met. Ceiling Co., Pittsburg, Pa
Milwaukee Corrugating Co., Milwaukee, Wis
Wheeling Corrugating Co., Wheeling, W. Va

Cement—Plumbers

Obermayer, Co., S. Cincinnati, O

Cement—Roofing

Auld & Conger Co., Cleveland, O
Conners, Wm. Paint Mfg. Co., Troy, Y. N

Chains—Jack and Safety

Hungerford, U. T. Brass & Copper Co., New York

Chimney Tops

Iwan Bros., Streator, Ill

Coil Springs

Pullman Mfg. Co., Rochester, N.Y

Conductor Hangers

Berger Bros. Co., Philadelphia, Pa

Conductor Pipe

Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Clark, Quien & Morse, Peoria, Ill
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis

Copper and Brass

Hungerford, U. T., Brass & Copper Co., New York, N. Y
Hussey & Co., C. G., Pittsburg, Pa

Core Compound

Obermayer Co., S., Cincinnati, O

Corn Cribs

Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices

Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co. Canton, O

Cornice Brakes

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Wks., Buffalo, N. Y.
Robinson, Mfg. Co., J. M., Cincinnati, O

Counters

Heller & Co., W. B. Montpelier, O

Couplings—Solderless

Modern Improvements Mfg. Co. Brooklyn, N. Y.

Crimping Machines

Robinson, Mfg. Co., J. M., Cincinnati, O

Cutlery

Smith & Hemingway Co., New York, N.Y

Cut Offs—Rain Water

Henkel Mfg. Co., The, Canal Dover, O
Huenefeld Co., E. H. Cincinnati, O
LaCrosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Sullivan-Geiger Co., The Indianapolis, Ind.

Dampers

Taylor & Boggis Fdy. Co., Cleveland, O

Designs, Etc., for Catalogs

Gatchel & Manning, Philadelphia, Pa

Door Hangers

Griffin Mfg. Co., Erie, Pa
Safety Door Hanger Co. Ashland, O

Door Holders

Caldwell Mfg. Co., Rochester, N. Y

Eaves Trough

Badger Steel Roofing & Corrugating Co La Crosse, Wis
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
La Crosse Steel Roof Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Whitacre, J. E. Mfg. Co., Rockford, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Eaves Trough Hangers

Canton Mfg. Co., Canton, Ohio

Elbows—Conductor Pipe

Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Dieckmann, Ferdinand. Cincinnati, O.
Eller Mfg. Co., Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis.
Wheeling Corrugat'g Co., Wheeling, W. Va

Elevators

Kimball Bros. Co. Council Bluffs, Ia

Enameled Ware

Star Enameling & Stamping Co., Pittsburgh, Pa

Engravings

Gatchel & Manning, Philadelphia, Pa

Fencing—Wire

American Steel & Wire Co., Chicago, Il
Denning Wire & Fence Co., Cedar Rapids, Ia
Eureka Fence Mfg. Co., Richmond, Ind
Pittsburgh Steel Co., Pittsburgh, Pa

Files

Carver File Wks, Philadelphia, Pa
Disston, Henry & Sons, Philadelphia, Pa

Fixtures—Store

Warren Mfg. Co., J. D., Chicago, Ill

Food Choppers

Enterprise Mfg. Co. of Pa. Philadelphia, Pa.

Forming Rolls

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y

Foundry Supplies

Obermayer, S. Co., Cincinnati, O

Furnace Cement

Connors Paint Mfg. Co., Wm., St. Louis, Mo

Furnaces—Hot Air

American Furnace Co., St. Louis, Mo
Bonnot Co., The Canton, Ohio
Boynton Furnace Co., Chicago, Ill
Excelsior Steel Furnace Co., Chicago, Ill
Floyd-Wells Co., The, Chicago, Ill and Royersford, Pa
Fox Furnace Co., Elyria, Ohio
Germer Stove Co., Erie, Pa
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg. Co., St. Louis, Mo
Henry & Scheible Co., Cleveland, O
Hess-Snyder Co., Massillon, Ohio
Kelsey Heating Co., Syracuse, N. Y
Magee Furnace Co., Chicago, Ill
March-Brownback Stove Co., Pottstown, Pa
May-Fieberger Co., The Akron, Ohio
Monroe Fdy. & Furn. Co., Monroe, Mich
Schwab, R. J. & Sons Co., Milwaukee, Wis
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa
Tubular Heating & Ventilating Co., Philadelphia, Pa
Youngstown Furn. & Supply Co., Youngstown, O

Furnaces—Soldering

Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich
Diener, Geo. W. Mfg. Co., Chicago, Ill
Turner Brass Works, Sycamore, Ill

Furnace Pipe and Fittings

Excelsior Steel Furnace Co., Chicago, Ill
Green Fdy. & Furn. Wks., Des Moines, Ia
Meyer & Bro., Co., F. Peoria, Ill
Michigan Safety Furnace Pipe Co., Detroit, Mich

Gas Stoves

American Beauty Stove Co., Erie, Pa
Economy Stove Co., Cleveland, O
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa
Toledo Stove & Range Co., Toledo, O

Gates

Eureka Fence Mfg. Co., Richmond, Ind

Grain Bins

Denning Wire & Fence Co., Cedar Rapids, Ia

Hangers—Garment

Pullman Mfg. Co., Rochester, N.Y

Hardware Jobbers

Clark, Quien & Morse, Peoria, Il
Paxton & Gallagher Co., Omaha, Neb

Hardware Specialties

Caldwell Mfg. Co., Rochester, N. Y
Enterprise Mfg. Co. of Pa., Philadelphia, Pa
Paxton & Gallagher Co., Omaha, Neb
Pullman Mfg. Co, Rochester, N. Y
Smith & Hemenway Co., New York, N. Y
Taylor & Boggis Foundry Co. Cleveland, Ohio

Heaters—Hot Water

Detroit Heating & Lighting Co., Detroit, Mich

Hinges

Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago, Ill

Hollow Ware
Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Il

Horse Nails
Standard Horse Nail Co., New Brighton, Penna

Horse Shoes
American Steel & Wire Co., Chicago, Ill

Hotels
Lenox Hotel Buffalo, N. Y

Ice Cream Freezers
North Bros. Mfg. Co., Philadelphia, Pa

Illustrations
Gatchel & Manning, Philadelphia, Pa

Iron Enamel
Black Silk Stove Polish Works Sterling, Ill
Nickel Plate Stove Polish Co., Chicago, Ill

Kitchen Utensils
Avery Stamping Co. Cleveland, O
Star Enameling and Stamping Co., Pittsburgh, Pa

Ladders—Shelf
Calander, John St. Paul, Minn

Lard Presses
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Lawn Fence
Denning Wire & Fence Co., Cedar Rapids, Ia

Levels
Baker-McMillen Co., Akron, O

Lighting
Ideal Epworth Acetylene Co. Waterloo, Iowa and Johnstown, Penna

Lighting Systems
Detroit Heating & Lighting Co., Detroit, Mich

Lightning Rod
Electra Lightning Rod Co. Cresco, Ia
Foy, Edw. A. & Co., Cincinnati, O
Maher & Son Lightning Rod Co., Preston, Ia

Metal—Perforated
Harrington & King Perforating Co., Chicago, Ill

Metal Polish
Black Silk Stove Polish Works, Sterling, Ill
Nickle Plate Stove Polish Co., Chicago, Ill

Metal Shingles
Barton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Nat'l Sheet Metal Roofing Co., Jersey City, N. J

Mica
Munsell & Co., Eugene Chicago, Ill

Milers
Whitacre, J. R. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper
Hungerford, U. T., Brass & Copper Co., New York, N. Y
Hussey & Co., C. G., Pittsburg, Pa

Nuts
Columbus Bolt Works, Columbus, O

Paints and Paint Specialties
Buckeye Paint & Varn. Co., Toledo, O
Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N. J

Pencils
Dixon, Jos. Crucible Co., Jersey City N. J

Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Pipe—Furnace
Excelsior Steel Furn. Co., Chicago, Ill
Meyer Bros. Co., F. Peoria, Ill
Michigan Safety Furnace Pipe Co., The Detroit, Mich

Plungers'
Berger Bros. Co., Philadelphia Pa

Pumps
Star Bucket Pump Co., St. Louis, Mo

Punches
Armstrong-Blum Mfg. Co., Chicago, Ill
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson, Mfg. Co., J. M., Cincinnati, O

Putty—Stove
Connors Wm. Paint Mfg. Co., Troy, N. Y

Radiators
Kellogg-Mackay-Cameron Co., Chicago, Ill

Radiators—Stove Pipe
Rochester Radiator Co., Rochester, N. Y

Rasps
Disston, Henry & Sons, Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Razors
Smith & Hemenway Co., New York, N. Y

Registers
Ferrosteel Co., Cleveland, O
Henry & Scheible Co., Cleveland, O
Independent Register & Mfg. Co., Cleveland, Ohio
Schwab & Sons Co., Milwaukee, Wis
Tuttle & Bailey Mfg. Co., New York, N. Y
U. S. Register Co., Battle Creek, Mich
Walworth Run Fdy. Co., Cleveland, O

Revolving Bolt and Screw Cases
American Bolt & Screw Case Co., Dayton, Ohio

Rivets
Columbus Bolt Works, Columbus, O
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Roasters
Wheeling Corrugating Co., Wheeling, W. Va

Roofers' Supplies
Auld & Conger Co., Cleveland, O

Roofing—Iron and Steel
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt, Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Nat'l Sheet Metal Roof. Co., Jersey City, N. J
Sykes Steel Roofing Co., Chicago, Ill
Wheeling Corrugating Co., Wheeling, W. Va

Roofing Cement
Auld & Conger Co., Cleveland, O
Connors Paint Co., The Wm., Troy, N. Y

Roof Paint
Dixon, Jos. Crucible Co., Jersey City, N. J

Rules
Lufkin Rule Co., Saginaw, Mich

Sash Balances
Pullman Mfg. Co., Rochester, N. Y

Sausage Stuffers
Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Saw Sets and Saws
Disston, Henry & Sons, Philadelphia, Pa
Smith & Hemenway Co., New York, N. Y

Schools—For Sheet Metal Pattern Drafting
Gray's School, New York, N. Y

Screens—Perforated Metal
Harrington & King Perforating Co., Chicago, Ill

Screen Door Checks
Pullman Mfg. Co., Rochester, N. Y

Screws
Columbus Bolt Works, Columbus, O

Screw Drivers
North Bros. Mfg. Co., Philadelphia, Pa

Seamless Tubing—Brass & Copper
Hungerford, U. T., Brass & Copper Co., New York, N. Y

Shears
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson, Mfg Co., J. M., Cincinnati, O
Wagner, C. DeWitt, Cedar Rapids, Ia

Sheets—Black and Galvanized
American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Griffiths Charcoal Iron Mills, Washington, Pa
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheets—Planished
American Sheet & Tin Plate Co., Pittsburgh, Pa
Follansbee Bros., Pittsburg, Pa
Griffiths Charcoal Iron Mills, Philadelphia, Pa
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheets—Steel
American Sheet & Tin Plate Co., Pittsburgh, Pa.
American Steel & Wire Co., Chicago, Ill
Follansbee Bros. Co., Pittsburgh, Pa
Griffiths Charcoal Iron Mills, Philadelphia, Pa
Sykes Steel Roofing Co., Chicago, Ill

Sheet Metal Ornaments
Berger Mfg. Co., Canton, O
Friedley-Voshardt Co., Chicago, Ill
Keighley Metal Ceiling Co., Pittsburg, Pa
La Crosse Steel Roofing and Corrugating Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis

Shelf Boxes
Green & Co., A. H., New York, N. Y
Heller & Co., W. B. Montpelier O

Shelving
Heller & Co., W. B. Montpelier, O
Warren Mfg. Co., J. D., Chicago, Ill

Shovels
Avery Stamping Co. Cleveland, O

Show Cases
Michigan Show Case Co., Detroit, Mich

Siding
Milwaukee Corrugating Co., Milwaukee, Wis

Sifters
Stuber & Kuck. Peoria, Ill

Skylights
Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton, O
Sykes Steel Roofing Co., Chicago, Ill

Skylight Gearing
Sykes Steel Roofing Co., Chicago, Ill
Weiss, H. & Co., New York, N. Y

Slate Roofing
Auld & Conger Co., Cleveland, O

Slating Nails
Hussey & Co., C. G., Pittsburg, Pa

Soldering Fluxes
Ruby Chemical Co., Johnston, Ohio
Solderene Co., The Boston, Mass

Squares, Machinists'
Disston, Henry & Sons, Philadelphia, Pa

Stampings—Sheet Metal
Avery Stamping Co., Cleveland, O

Steel
American Steel & Wire Co., Chicago, Ill

Stoves and Ranges
Allen Mfg. Co., Nashville, Tenn
American Beauty Stove Co., Erie, Pa
Champion Steel Range Co., Cleveland, O
Chicago Stove Works, Chicago, Ill
Economy Stove Co., Cleveland, O
Floyd-Wells Co., The Chicago, Ill. & Royersford, Pa
Foster Stove Co., The, Ironton O
Fox Furnace Co., Elyria, Ohio
Germer Stove Co., Erie, Pa
Paxton & Gallagher, Omaha, Neb
Quality Stove & Range Co., Belleville, Ill
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Toledo Stove & Range Co., Toledo, O
Van, John, Range Co., Cincinnati, O

Stove Mats
Stuber & Kuck. Peoria, Ill

Stove Patterns
Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N. Y
Weller Pattern Co. Quincy, Ill

Stove Pipe
Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles
Stuber & Kuck, Peoria, Ill

Stove Polish
Black Silk Stove Polish Works, Sterling, Ill
Nickel Plate Stove Polish Co., Chicago, Ill

Stove Putty
Connors Paint Mfg. Co., Wm., St. Louis, Mo
Dixon, Jos. Crucible Co., Jersey City, N. J.

Stove Repairs
American Stove Repair Works, St. Paul, Minn
Brauer, A. G., Supply Co., St. Louis, Mo
Manufacturers Stove Repair Co., Chicago, Ill
U. S. Stove Repair Co., Minneapolis, Minn

Stove Trimmings
Mooney, F. J., Brazil, Ind

Store Fixtures
Heller & Co., W. B. Montpelier, O

Sugar Kettles
Sperry, D. R. Co., Batavia Ill

Supplies—Foundry
Obermayer Co., S., Cincinnati, O

Supplies—Stove Dealers'
Brauer, A. G., Supply Co., St. Louis, Mo

Tacks
Hungerford, U. T., Brass & Copper Wks New York, N. Y

Tapes
Lufkin Rule Co., Saginaw, Mich

Technologist
Hooper, C. N. Dubuque, Iowa

Thermometers—Oven
Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated
Harrington & King Perforating Co., Chicago, Ill

Tinners' Furnaces
Burgess Soldering Furnace Co., Columbus, Ohio
Clayton & Lambert Mfg. Co., Detroit, Mich
Diener Mfg. Co., Geo. W., Chicago, Ill
Turner Brass Works, Sycamore, Ill

Tinners' Tools
Armstrong, Blum Mfg. Co., Chicago, Ill
Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Bertsch & Co., Cambridge, Mass
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O
Smith & Hemenway Co., New York N. Y
Wagner, C. DeWitt, Cedar Rapids, Ia
Weiss & Co., H., New York, N. Y

Tinplate
American Sheet & Tin Plate Co., Pittsburg, Pa
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings
Berger Bros. Co., Philadelphia, Pa

Tools, Etc.
North Bros. Mfg. Co., Philadelphia, Pa

Tools—See Carpenters' Tools

Tools—Linemen's
Smith & Hemenway, New York, N. Y

Trowels
Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Brass and Copper
Hungerford, U. T., Brass & Copper Co. New York, N. Y

Tubing—Heavy Tin
Dieckmann, Ferdinand, Cincinnati, O

Ventilators
Badger Steel Roofing & Corrugating Co., LaCrosse, Wis
Berger Mfg. Co., Canton, Ohio
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago Ill
Globe Ventilator Co., Troy, N. Y
Herrin Co., J. M., Warsaw, Ind
Independent Register & Mfg. Co., Cleveland, Ohio
Iwan Mfg. Co., Streator Ill
Merchant & Evans Co., Philadelphia, Pa
Pullman Mfg. Co., Rochester, N. Y
Uno Ventilator Co., Lynn, Mass

Washers
Columbus Bolt Works., Columbus, O

Washing Machines
Bremmer, H. F., Mfg. Co., Davenport, Ia
White Lily Mfg. Co., Davenport, Ia

Wire
American Steel & Wire Co., Chicago, Ill

Wire Goods
Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh, Pa

Wire Stretchers
Smith & Co., C. F. De Kalb, Ill

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS HUBERT E. PECK 623 F. Street, N. W. Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

Tinshop for Sale—Three lots 50 by 150, good tinshop, barn, warehouse and full set of tinner's tools. Fine location and two railroads in town. Good farming country. Address W. H. Besel, Oran, Missouri. 17-3t

For Sale—Tinshop, full set of tools, and some stock for $300 cash. Only shop in railroad town of 1,800 inhabitants. Write at once. Address J. A. Phillips, Thayer, Missouri. 16-3t

For Sale—General hardware business of about $8,000 in good Nebraska town. Growing business and well settled country. Have sickness in family and want to go West. Address L-42, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-3t

Wanted to Buy—Half interest in a good paying stock of hardware. Am a practical hardware man and tinner. Address J. W. Chandler, Huntley, Illinois. 17-1t

For Sale—Stock of hardware. The best opportunity to go into the hardware business in the United States. In a good town in the best county in Kansas. Cash only will buy it. Address W. W. Wheeler, Harlan, Iowa. 17-3t

For Sale—In A1 condition, 1 set Howe counter scales, 300-pound capacity, at $7.00; 1 three-foot cutlery show case, 15 inches high, at $4; 1 pair Baltzley's stove trucks at $2.50; 12 sets standard stove trucks at 90 cents each. Address Ebert Hardware Co., Truman, Minnesota. 17-3t

For Sale—Hardware; good established trade; best section of state; worth $11,000; quick sale; best reasons; $6,000 cash. No trades. Address Box 142, Starkweather, North Dakota. 17-1t

For Sale—Well established hardware, tinshop and implement business at invoice price. Will invoice about $5,000. Must sell on account of poor health. Business in good condition and clean up-to-date stock. A splendid opportunity. Address L-40, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-3t

For Sale—Well established hardware, stove and tin business with good paying shop. Located in one of the nicest and best cities of 10,000 inhabitants in the state of Ohio. Best of schools, etc. Poor health reason for selling. Address L-38, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-3t

Will Exchange—A complete Landing Ronning account system, nearly new and in fine condition, cost $21, for a second-hand Dupligraph, a Quick Easy Copying Press or a Duplicator. If you have any of these write to A. F. Ramharter, Clear Lake, South Dakota. 16-3t

For Sale—75c on the dollar will buy one of the finest stocks of General Hardware with Warren Fixtures, including Stoves, Paints, Oils, Glass, etc., in Northern Illinois. This stock will invoice about $10,000 and is a fine proposition for a Hardware Man and will stand close investigation. This city has a population of ten thousand inhabitants and is one of the most beautiful cities in the state for its size. This is a splendid business opportunity. No trade. Write for particulars. Address L-22, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. ufn

Wanted—Stock of hardware in exchange for farm in the Red River Valley in Pembino County, North Dakota. Address Lock Box 2, Emington, Illinois. 16-1t

For Sale—Well established hardware business and tinshop on the north side of Chicago. Clean stock. Will invoice about $7,500. Good reasons for selling. For full particulars address L-29, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 13-3t

For Sale—The only hardware stock in good western town, one year old, with 500 inhabitants and three railroads. Stock will invoice about $1,500; have tinshop in connection. A chance to get good business and good homestead near town. Have other business to look after. Address L-36, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 15-3t

TINNER'S TOOLS.

Wanted—An 8-foot cornice brake in first-class condition. State best cash price, condition and pattern. Address P. O. Box 423, Bloomington, Illinois. 17-3t

HELP WANTED.

Wanted—Good reliable tinner and furnace man at once. Address G. Sayers' Hardware, 92 Third Ave. W., Cedar Rapids, Iowa. 17-1t

Wanted—Two good tinners at once. Apply Hoernel Hardware Co., Racine, Wisconsin. 17-3t

Stove Salesman — Wanted, thoroughly experienced and successful salesman by a leading foundry. Liberal proposition. Territory open in several states. Address L-43, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-1t

Wanted—Two first-class all around tin and sheet iron workers. Must be steady and reliable. Steady work; wages $3.50 per day (10 hours). Address L-41, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-3t

Wanted—First-class, energetic stove salesman on commission basis to sell the greatest specialty line of Steel Ranges made. Our line has more patented features of merit than all other lines combined. Only competent men who are business getters need apply. Applications treated strictly confidential. Some good territory in West and Middle West still open. Address Allen Mfg. Co., Nashville, Tennessee. 16-3t

Wanted—At once, a good plumber and furnace man. One who understands hot water heating. No boozer. Permanent job at good wages. Address A. C. Snyder, York, Nebraska. 16-2t

Wanted—Two first-class tinners accustomed to copper work. Must be neat and experienced mechanics. Steady inside work. Address L-34, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 15-3t

Wanted—First-class salesman to sell our specialty line of patented ranges. Applications treated confidentially. Address Allen Mfg. Co., Nashville, Tennessee. 15-3t

Wanted—Two good tinners at once. Address Mohr Jones Hardware Co., Racine, Wisconsin. 15-3t

Wanted—All around tinner and furnace man. Mostly indoor work. Steady, sober man. Steady work the year around for the right man. Wages $2.75 or $3.00 per day of ten hours. Address Matern's Stove Store, 713 Water St., Sandusky, Ohio. 13-6t

Wanted—Two first-class tinners for in and outside work, capable of doing any kind of sheet metal work. We have the best shop in the country and the best job for two good men. Wages $3 per day of eight hours. Address Scott Mfg. Co., Robinson, Illinois. 16-3t

SITUATIONS WANTED.

Situation Wanted—By middle aged tinner, sober and reliable. Steady job. Address L-44, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-1t

Situation Wanted—By young man with 1½ years' experience in plumbing and tinning trade. A position as second man preferred. Address Box 36, Glenburn, North Dakota. 16-3t

Position Wanted—Retail hardware merchant who has made a specialty of stove salesmanship with decided success wishes a position on the road with first-class line of stoves and ranges. Address L-39, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-3t

Position Wanted—By first-class tinner; strictly sober and reliable. Address L-37, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-2t

SPECIAL NOTICES.

WANTED

Two competent stove and range salesmen. None but steady, sober, and reliable men need apply. Address B-30, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-4t

Position Wanted.

Traveling Salesman with experience and ability wants position with hardware manufacturer. At present covering eastern territory. Best of references. Address "B-30," care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-7t

A Business Opportunity

FOR SALE—A clean, well-assorted stock of Hardware and Buggies, with Plumbing and Sheet Metal Shop, in one of the best towns in prosperous Oklahoma. Stock $15,000, sales $55,000, good profits, business improving, town growing, 20,000 population and only three hardware stores, good location and moderate rent. The best business opportunity in the United States to-day. Address "Oklahoma," care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-2t

Hardware and Implement Salesmen

who want a good side line. No samples to carry. Good commission. Address Will A. Eshbach, 147 N. Delaware St., Indianapolis, Ind. 14-4t

For Sale or Trade

In Oregon Real Estate

Oldest Hardware and Machinery stand. No stock. Brick building; best location. Only one competitor. In Southern Minnesota town. Address R. Reierson, 182 Morrison Portland, Oregon. 10-9t

WANTED SALESMEN

Visiting stove trade to handle household specialty as a side line. Extensively advertised in largest magazines. Easy seller; immense sales; big profits. In writing state line you are selling and territory you cover. Address C. E Swartzbaugh, 1336 West Bancroft St., Toledo, Ohio. 14-5t

Subscription Solicitors Wanted

WANTED—Agents to solicit subscriptions to the THE AMERICAN ARTISAN in every state in the Union. Can be handled as a side line by agents who sell stoves and sheet metal wares. Write for agent's terms and state what territory you can cover.

SUBSCRIBERS who can spare a few hours a week can make money on the side by soliciting subscriptions in their vicinity or among their fellow workers. Write for particulars.

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THE AMERICAN ARTISAN
355 Dearborn St., Chicago.

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WANTED

At once, experienced Salesmen in all states east of the Mississippi River to sell a full line of Standard Tinware, Cream Separators, Galvanized Goods and Hardware Specialties. Liberal commissions. Old established business. Address Lawrence-Bostwick Mfg. Co., Ltd., Phelps, New York. 15-4t

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First-class, energetic. For one of the largest and best lines in this country. We have several territories open. A good opportunity for the right man. Only competent men who are business getters need apply. Address B-27, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-4t

WANTED

By Salesman calling on the hardware and housefurnishing trade in Texas, one or two small lines of everyday sellers, straight commission. Mail catalogues and address Box 927, Dallas, Texas. 15-3t

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Wanted to handle a line of high grade metal goods. For first-class men we have a good opening. None but high class salesmen need apply. Lock box 1048, Rochester, New York. 15-4t

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One of the best retail hardware stores in Iowa. Stock, fixtures and real estate connected with same. Property will invoice from $20,000 to $25,000. Can reduce if desired. Annual sales over $50,000. Will sell at once. Address B-28, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 15-

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Metal patterns complete for high grade STEEL RANGE (three bodies) for sale at bargain. Address "Dexter," care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 15-17

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Guarantees Pure Water in Your Cistern

It permits only pure, clean rain water to enter the cistern. It automatically carries the first sooty, filthy drainage from the roof to the waste pipe, and not until the water runs clear and pure does it go into the cistern.

IT IS AUTOMATIC—SET IT ONCE

No more going out in the rain—no more trouble or cleaning cisterns—pure, clean water always.

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Our products are designed to meet the wants of all classes of paint consumers. We guarantee all paints and varnishes bearing our name. Made of the best material obtainable.

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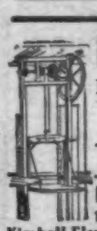
Position _____



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the "Proven Shield for Steel Work." Durability records in all climates; write for a few.

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MADE BY EVANS STAMPING AND PLATING COMPANY TAUNTON, MASS.
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Supplies and Repairs of All Kinds

Fair Treatment Low Prices Prompt Shipments
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WHEN YOU BUY
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They are made of the BEST IRON
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STOVE AND FURNACE
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DESIGNS and ESTIMATES FURNISHED
FOR ALL KINDS OF STOVE PATTERNS
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For Stoves and Heaters
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PATTERNS
For Stoves and Heaters
First-Class in Wood and Iron
Vedder Pattern Works, Troy, N.Y.
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Stove Pipe
It is made of a very high grade of uniform color Blue Polished Steel and is coated to prevent rusting. Made in all sizes. Packed twenty-five and fifty joints to crate. For sale by the jobbing Hardware Trade throughout the United States. Mfg. by HEMP & CO., 2nd & Choutsau Ave., ST. LOUIS.
In the event your jobber does not handle this pipe, send your inquiries to us.

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Modern. High Grade. Fireproof.
OUR OWN RAPID ELECTRIC CARRIAGES, EXCLUSIVELY FOR PATRONS, operate continuously every few minutes from Hotel through Business District and to all Depots for principal trains.
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Shingles that last
Made from Galvanized Tin and Painted Tin
Storm, Rust and Fire Proof
Do you want to increase your business? THIS IS YOUR OPPORTUNITY. Write for catalogue samples and prices.
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Galvanized Iron and Copper Cornices
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Our new CATALOG for asking. It will interest you.
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Metal Roofing and Siding.
Corrugated Sheets, painted or galvanized.
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Price list and estimates furnished upon request.
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Sperry's Steam Kettles
Made from very thick metal, without Stay Bolts, joint packed in such a manner as to never need repacking. A little higher priced than some, but *they are safe and tight.*
D. R. SPERRY & CO. HOLLOW-WARE FOUNDERS BATAVIA, ILL.

The Wagner Patent Elbow and Slitting Shears
Will save time and money in making elbows and when used in connection with a cornice brake light iron can be cut any width and length. Buy a set before your competitor does. These shears are thoroughly guaranteed to give satisfaction or no sale. Made by
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CONDUCTOR PIPE AND CONDUCTOR PIPE FITTINGS

Manufactured by

WHEELING CORRUGATING COMPANY

WHEELING, W. VA.

BRANCH OFFICES AND WAREHOUSES:

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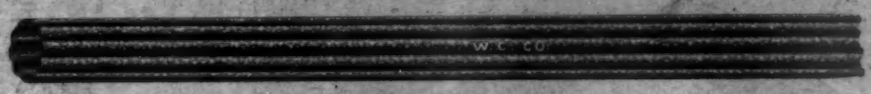
PIPE MADE IN ONE PIECE WITHOUT CROSS SEAM

Galvanized Steel, Galvanized Charcoal Iron, IX, Terne and Cold Rolled Copper. All ten-foot lengths.

SIZES, 1½, 2, 2½, 3, 3½, 4, 5, 6, 7 INCHES



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GALVANIZED SHEETS
CORRUGATED
SHEETS
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Write to Nearest Warehouse for Prices

IRON
AND STEEL ROOFING
TIN ROOFING
SOLDER

CHARCOAL IRON

More resistant to corrosion than anything made. Demonstrate it for yourselves, by sending for method of test. A simple test will enable you at once to distinguish between Charcoal Iron and Steel.

Terne Plates, Long Terne Sheets, and Black Sheets, all from our famous charcoal iron base.

Griffiths Charcoal Iron Mills

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We manufacture the brand **"MERCHANT'S OLD METHOD"** FOR ROOFING and the brand **"MERCHANT'S FIRE RETARDING"** FOR FIRE DOORS.

"Reg. in U. S. Pat. Off."

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Chicago
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Manufacturers of

High Grade Roofing Tin

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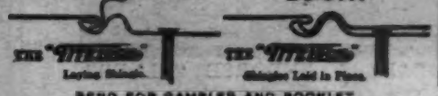
Style "A" Showing Method of Laying

"TITELOCK" TRADE MARK

METAL SHINGLES

THE MOST PERFECT MADE

NOTE THIS ABSOLUTELY WATERTIGHT LOCK!



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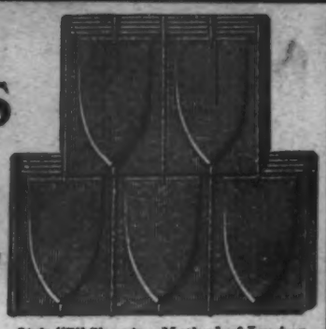
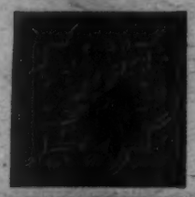


Style "B" Showing Method of Laying



"Invisible Joint" TRADE MARK

STEEL CEILINGS

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MILWAUKEE CORRUGATING CO.

MILWAUKEE, WIS. KANSAS CITY, MO.

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Patented

SQUARE ELBOWS

Made of One Piece of Metal, Bear Trade Mark

F. Dieckmann

Galvanized After Formation—Charcoal, Copper, Old Style.

THE F. DIECKMANN CO.

Station B. CINCINNATI, OHIO

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Patented.

SIX STANDARD PRODUCTS

USED BY ALL THE LEADING STOVE AND RANGE MANUFACTURERS

W. Dewees Wood Company's Patent Planished Iron.
Wood's Cleaned Refined Smooth Finish.
Hammered Polished Steel.
Wood's Oak Stove Body.
Wellsville Polished
Range Steel.

MANUFACTURED BY

AMERICAN SHEET AND TIN PLATE COMPANY

FRICK BUILDING PITTSBURGH, PA.

Blick No. 3 The Best Box

For Rural Free Delivery

Be Just With Customers

Sell them Blick No. 3 boxes. They are big ones, 6½ x 8½ x 19 inches. Made of heavy galvanized steel. Painted green, the new government color. Same shape and color as city boxes. Have Positive Locking Flag Signal, Automatic Latch, Watertight Quality. Every box tested, every box right, every box warranted. They will get the business. You better get them. Order now.

$5.88 per Doz.

Blick - Williams Co.

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THE AMERICAN ARTISAN, Chicago, Ill.

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ART METAL CEILINGS

TIN AND TERNE PLATE
EAVES TROUGH, CONDUCTOR PIPE
ELBOWS and SHOES

STEEL ROOFING
BRICK and STONE SIDING
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"The ELLER trade-mark stands for the best in steel." *Write to-Day* for Catalog.

ELLER MFG. CO. : : CANTON, OHIO

Lock Joint

Metal Ceilings

Handsome Panel Effects

Special Designs Submitted on Request

Artistic Combinations

Perfect Joints

Absolutely Dust-Proof

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It Will Pay You

to illustrate your advertisements in your local papers. A sheet of comic advertising cuts sent on application.

These cuts are furnished with catchlines showing their application to the hardware, stove and tinners' trades. Address

DANIEL STERN
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Ask Your Dealer For The

Sems

Soldering Furnace

And You Will Make No Mistake

Always Ready—No Smoke—No Odor—No Noise—Unexcelled—Unequaled—Unrivaled—Safe—Sure—Durable.

Galvanized Iron, Brass or Copper Reservoir
Equipped with Cylindrical Slotted Burner

MADE ONLY BY
BURGESS SOLDERING FURNACE CO.
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The "TORRID" Square Furnace

The most economical and hottest on the market. Noiseless, odorless and smokeless in operation. Our No. 10 has the greatest range in heating of any furnace made, namely 3 to 18 pound coppers, indoors or on a roof in cold and windy weather. Order of your jobber, or we will ship direct for $6.50, on 30 days approval.

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WHY IT LEADS!

The No. 1 C. & L. Fire Pot produces a hotter flame, using less gasoline than any other make. The burner is capable of every needed adjustment and is the outgrowth of over 20 years' practical manufacturing experience. Heats the heaviest irons in half the time required by other makes at the same time melting a kettle of lead or solder. The No. 1 can be used as a torch or brazing fire. This fire pot affords a "knack in use" made possible only through its perfect construction, simplicity and easy operation.

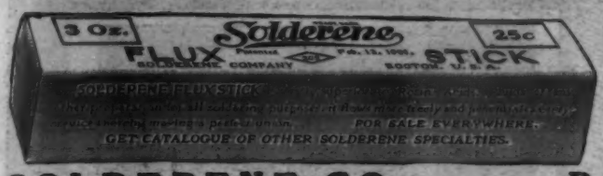
No. 1 Firepot—$6.00 Net.
Jobbers' supply at factory prices, or we will ship direct if cash accompanies the order.

Booklet Free!

CLAYTON & LAMBERT MFG. CO.
Detroit, Mich., U. S. A.

J. F. LEWIS, Cisco, Ill., *writes:* *I cannot get along without THE AMERICAN ARTISAN.*

SOLDERENE FLUX STICK and FLUX PASTE



Two specialties of unusual merit for all general purposes in the factory, laboratory or on the job.

Economical, Waterproof, Odorless, Non-Corrosive, and will not evaporate or rust.

WRITE FOR OUR TERMS TO THE TRADE.

SOLDERENE CO., Boston, Mass.

BEST FURNACE MADE

That is what we give you when buying our Bonanza Furnace. Galvanized Iron Tank. Automatic Brass Pump. Fully guaranteed.

Two sizes, No. 34—1 gal., price.....$6.00 net
No. 36—3 qts., price..... 4.50 net
Order from your jobber or send us amount. We will ship direct.

THE TURNER BRASS WORKS
26 Park Ave. Sycamore, Ill., U. S. A.

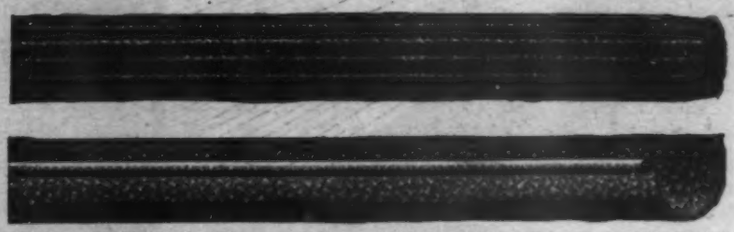
RUBY FLUID

A highly important discovery by a practical working tinner. A Perfect SOLDERING Flux, for GALVANIZED and ALL OTHER METALS. Shipped Ready FOR USE in TIN CANS on Approval.

THE RUBY CHEMICAL CO., Inc.
JOHNSTOWN, OHIO

BERGER BROS. CO.,

Manufacturers of PIPE AND GUTTER, HEAVY GAUGES and COPPER A SPECIALTY



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20 Cliff Street, NEW YORK

Skylight Gearing and Chain Lifts

Tinsmiths' and Plumbers' Tools

Cornice Makers' Tools

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Pipe Threading Machines

Second-Hand Goods Bough Sold and Exchanged

Punch, Shear and Bender Combined for ½" Iron

TOOLS for SHEET METALS

Niagara Crimper and Beader

INCLUDING

Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery

MADE BY

Niagara Machine & Tool Works,
BUFFALO, N. Y.

8-foot Shear

Write for Catalog "F."

We build a complete line of Shears, Punches and Forming Rolls, for either hand or belt power.

BERTSCH & CO., Cambridge City, Ind.

MARVEL

Patent applied for

PORTABLE PUNCH No. 20

Made entirely of STEEL

Punches ¾ in. hole in ¼ in. and equivalent

Let us send you one on trial.

Write for circular and price of this and other Marvel Punches and Shears.

ARMSTRONG-BLUM MFG. CO.,
106 N. Francisco Ave., Chicago, Ill.

C. G. Hussey & Company

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Manufacturers of

Soft Copper,	Copper Nails and Tacks,	Cold Rolled Copper,
Copper Gaskets,	Tinned Copper,	Special Shapes Sheared or Stamped,
Copper Bottoms,	Polished Copper,	Slat ng Nails,
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PROMPT SHIPMENT FROM STOCK.

To the AMERICAN ARTISAN: ***April 13, 1907.***

I find your paper the best to advertise in. Thanking you for the ed, I am Yours truly, J. J. SPOHN, Rockefeller, Ill.

New Light On

Berger's "Classik" STEEL CEILINGS:

The NEW Catalog { 250 Pages Profusely Illustrated. Full of data every live Steel Ceiling Dealer should have.

It's a Business Bringer and You should have it.

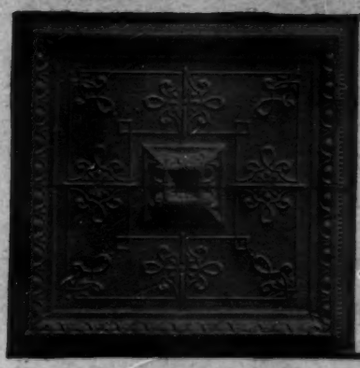
ASK TODAY FOR CATALOG D8

THE BERGER MFG., CO.

CANTON, O.

New York Chicago Boston Atlanta Philadelphia Minneapolis St. Louis San Francisco

THE BERGER MFG. CO. CANTON, O.



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Manufacturers of

Art Metal Ceilings and Side Walls

Sheet Metal Statuary

Architectural Ornaments

Send for Catalogue

194-204 Mather Street : CHICAGO, ILL.

La Crosse Steel Roofing and Corrugating Co.

LA CROSSE, WISCONSIN

MANUFACTURERS OF

EAVES TROUGH
CONDUCTOR PIPE
CUT OFFS
MITRES, ENDS AND DROPS
ROOFINGS AND SIDINGS
STEEL CEILINGS
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SKYLIGHTS

Quick Shipments Our Specialty *Send for Catalog*

Plecker's *Corrugated* Expanding *Conductors*

Have no Cross Seams. Made of [redacted] Will not burst when full of ice. Galvanized Iron in ten-foot lengths.

CLARK, QUIEN & MORSE. PEORIA, ILL.

"Pittsburgh Perfect" Fences

The Only Fence of the Kind Made

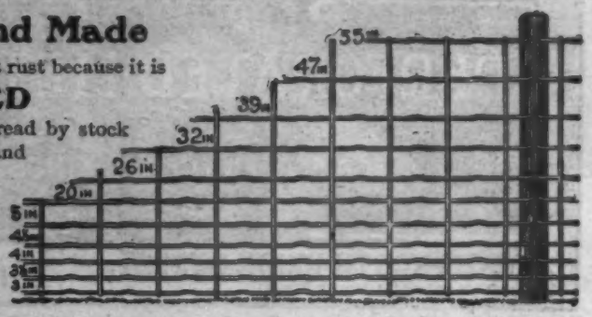
This fence has no wraps or clamps to hold moisture and cannot rust because it is

ELECTRICALLY WELDED

It is the strongest fence on the market, the stays cannot be spread by stock because where the wire is electrically welded both stay and strand become one piece of steel and the joints are given double strength. Do you want to eliminate all your fence troubles? If you do try the

"PITTSBURGH PERFECT" FENCE

Catalog on application, write for it.



Pittsburgh Steel Co., Pittsburgh, Pa.

To Increase Your Earning Capacity

—To the young man trying to decide on a calling.
—To the older men on the firing line of business.

Of interest to wholesale and retail salesmen, sales managers, heads of departments, bookkeepers, stenographers, clerks, physicians, dentists, lawyers, men engaged in technical lines, in fact, it will aid any man by enabling him to understand the laws of salesmanship, and how to apply them so as to increase his earning capacity.

The Sheldon Book tells the story of the Science of Salesmanship — how it came to be founded—how it has increased the earning capacity of tens of thousands of salesmen, business men and others— how it will benefit you. Every page of the book contains profitable suggestions for you.

Writing for the book today may be the best thing you ever did. Simply fill out and mail the coupon below. It does not bind you in any way.

THE SHELDON SCHOOL, 1431 Republic Bldg. Chicago

(COUPON)

Send me your Free Book outlining the work of the Sheldon School.

Name.....

Address.....

Town.....

Uno Revolving Ventilators

A sure cure for smoky chimneys, the best for ventilation.

4' to 30'

Send for Catalogue

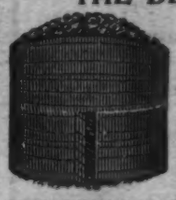
Uno Ventilator Co.

P. O. Box 200 LYNN, MASS.

DEALERS! Here is a sample of our Farm Advertising

Handle ours and you will be on the right side. The farmer knows about them. We have a branch at Kansas City and can ship on short notice.

"THE DENNING" CORN CRIBS AND GRAIN BINS



Will store your whole crop at a nominal cost.

"THE DENNING" FENCE

Will take care of your poultry, hogs and stock.

"THE DENNING" LAWN FENCE

Will ornament your premises.

Ask your dealer for "The Denning." Take no substitute.

THE DENNING WIRE & FENCE CO. CEDAR RAPIDS, IOWA

EUREKA GATES

Strong, Handsome, Durable, Unexcelled

14 Foot Drive Gate with Double Latch.

Eureka Gates are constructed entirely of steel tubing and galvanized wire—**the very best quality procurable being used.**

They will not catch wind or bank snow and the price puts them in reach of all.

We also manufacture LAWN AND FIELD FENCE: WALK, DRIVE AND FARM GATES, AUTOMATIC DRIVE GATES, ETC.

Write us to-day for full descriptive matter.

EUREKA FENCE MFG. CO., Richmond, Ind.

A PAYING INVESTMENT.

Home Study is Both Economy and Investment.

The man who is able to detail and develop his work accurately is the man that holds the steady position and receives the highest salary.

This is the most thorough and practical course to be had, covering Tinning, Heating, Ventilation, and Cornice Work, taught by practical sheet metal draughtsman.

We give double the instruction at half the price of any other school.

There is no time limit to this course, although the average scholar completes his course in 25 months.

Our full course is $35.00, payable $3.00 with application and $2.00 per month until $35.00 is paid.

$30.00 if paid $5.00 monthly within six months.

$25.00 if paid in advance.

Write for circular giving full information concerning this school, also full size drawing. Enclose 4c in stamps to cover postage.

When writing please mention THE AMERICAN ARTISAN.

GRAYS' SCHOOL,

1028 Jackson Avenue, - - NEW YORK, N. Y.

THE AMERICAN ARTISAN.

Gentlemen: Please discontinue my ad. I have sold the stock and die. The first issue did the business. Yours truly. E. J. KETCHUM, West Duluth, Minn.

THE HARRINGTON AND KING-PERFORATING CO.

PERFORATED METALS
OF EVERY DESCRIPTION AND FOR ALL PURPOSES
FOR SCREENS OF ALL KINDS

No. 212 NORTH UNION STREET, CHICAGO, ILL.
New York Office, 114 Liberty Street.

Iwans' Volcano Revolving Chimney Top

Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

Send postal for catalogue.

IWAN BROTHERS
Mfrs. of Hardware Specialties
STREATOR, ILL.

Drink Pure Water

The **No. 50 Star Pump** shown here will positively purify the water in any well or cistern in a short time.

This purifying feature alone makes it the only pump fit to put in any well where the water is used for household purposes, for it will surely save its cost in the Doctor's bill many times over.

Then it is a very substantial and handsome outfit, and will last for years.

Our line of purifying pumps is very complete. So is our line of Galvanized Chain Pump Curbs and Tubing.

Ask your jobber for Star Pumps.

STAR BUCKET PUMP CO.
ST LOUIS, MO.

The STAR Water Filter and Cut-Off

A superior article. Does away with weak, flimsy cut-offs and expensive underground filters which collect rubbish. Best and most durable on the market. Keeps all rubbish from entering the cistern. Purifies the water. Fully Guaranteed. A trial order solicited.

THE E. H. HUENEFELD CO.,
2700 Spring Grove Street - - - - CINCINNATI, OHIO

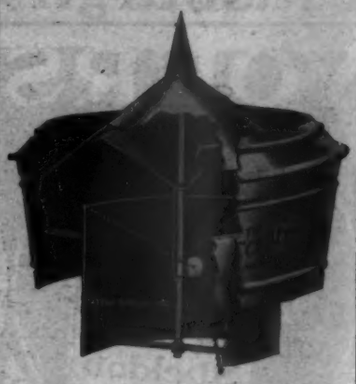
100 TINNERS' PATTERNS
Complete for $1.00

Sent Postpaid on Receipt of Price.

DANIEL STERN,
355 Dearborn St. CHICAGO.

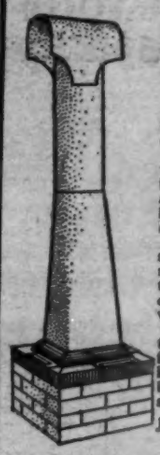
Standard Metal Shingles

The Canton Ventilator



Made with Metal and Glass Tops and with and without Automatic closing device.

THE CANTON MFG. CO.
CANTON, OHIO
Makers of
Cornice, Skylights, Metal Ceilings, Eaves Trough, Conductor Pipe, Etc.



Herrin's Universal
Adjustable Cast Iron
STACK BASE
For Chimney Caps and Stacks

The only Stack Base made that is put on without mortar.

Absolutely prevents water from running down the inside of the chimney and at the same time keeps it from following down the outside.

Absolutely firm. Preserves the top of the chimney and does not loosen the brick or harm the chimney when the galvanized pipe is replaced.

By removing the bolts this base will fit four different size chimneys. Looks well and will last a life time. Write for descriptive matter.

J. M. HERRIN CO., Mnfrs.,
Warsaw, Ind.

STANDARD HORSE NAIL CO.
NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.

LUFKIN Measuring Tapes

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

¶ It takes but a minute and a postal to ask for our catalog—it's more than worth while.

Please Mention The American Artisan

THE LUFKIN RULE CO. Saginaw, Mich., U. S. A.

New York London, Eng. Windsor, Ont.

DISSTON SAWS

Run Easiest
Cut Fastest
Last Longest

To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

HENRY DISSTON & SONS, Inc.

Keystone Saw, Tool, Steel and File Works

PHILADELPHIA, PA.

A NEW PATTERN STANDARD LEVEL—Two Level Glasses, One Plumb Glass

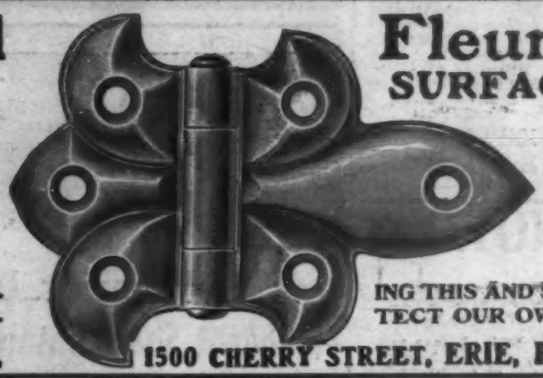
Side glasses may be reversed at any time; all easily adjustable; all glasses in plain view from both sides; brass trimmings on both sides.

No. 31—Solid Cherry.
No. 32—Three-piece Cherry.
No. 33—Solid Mahogany

THE BAKER-McMILLEN COMPANY, Akron, Ohio

The Original PATENTED Fleur De Lis SURFACE HINGE

Dealers and Users Beware of Infringement.



Made in All Finishes. They Have No Comparison for High Class Work at Moderate Prices.

WE HAVE BROAD PATENTS COVERING THIS AND SIMILAR DESIGNS AND SHALL PROTECT OUR OWN

THE GRIFFIN MFG. COMPANY, 1500 CHERRY STREET, ERIE, PENNSYLVANIA

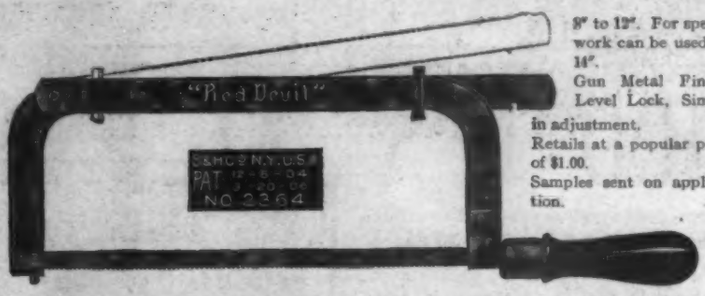
Empire Door Holder

Improved

50 per cent greater pressure on the door than any other. Easy to apply. Easy to operate.

CALDWELL MFG. COMPANY
41 Jones St., Rochester, N. Y

Genuine "RED DEVIL" Hack Saw Frame



8" to 12". For special work can be used on 14".
Gun Metal Finish, Level Lock, Simple in adjustment.
Retails at a popular price of $1.00.
Samples sent on application.

Order through your jobber or direct from us. Insist upon the Genuine "RED DEVIL"

SMITH & HEMENWAY CO., 108-110 Duane Street, New York City

THE AMERICAN ARTISAN Keeps You Posted.

Shell Boxes,
Hardware Shelving,
Counters,
Screw, Bolt and
Seed Cases,
Store Ladders,
Glass Cutting Boards,
Immediate Shipments,
Send for Booklet.

W. B. HELLER & CO.,
MONTPELIER,
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INTERCHANGEABLE
LOCK-CORNER
SHELF BOXES
For the Hardware Trade.
THE A. H. GREEN CO.,
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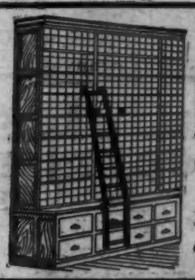
-SHELVING-
WARREN SYSTEM
SELF PAYING
HARDWARE STORE EQUIPMENT
IN INTERCHANGEABLE SECTIONS
& SCREW, BOLT & GUN CASES.
J. D. WARREN MFG. CO. CHICAGO U.S.A.



Milbradt's Rolling
Shelf Ladders
Are made to fit all kinds of high shelvings and are guaranteed to be satisfactory in every respect.
HIGHEST AWARD
St. Louis World's Fair
Send for Catalog and Prices
JOHN CALANDER
Manufacturer
629-631-633 Jackson St.
ST. PAUL, MINN.

LIGHTNING RODS

We manufacture Pure Copper Wire Cable Lightning Rods, made of 28, 30 and 49 Wires, with complete outfit of trimmings.
E. A. FOY & CO., Cincinnati, Ohio
Trade Supplied at Lowest Rates.
Send for Catalogue "B."

FREEZERS

THAT EXCEL IN
Easy Running
Quick Freezing
Economy
Convenience
Practical Results

THAT ARE
Well Advertised
In Demand
Easily Sold
Satisfactory in Use
Of Known Reputation

"LIGHTNING" "BLIZZARD"

THE "BEST MADE" because in practical use, they are convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work. We make also

MACHINE FREEZERS AND ICE BREAKERS

Sold by Leading Jobbers Catalog Sent Free

NORTH BROS. MFG. CO. Philadelphia

A Case That Saves You Money

Saves because it offers higher quality at a lower price than you can find elsewhere in a "knock-down" case. Makes money for you because it gives perfect display to articles in it.

The Wolverine Show Case

is not a shoddy, trappy case, but is of the highest quality throughout made of solid oak, with beveled plate glass top, nickeled fittings and brackets. Our knock-down method of shipping saves two-thirds the freight cost. Send to-day for our new catalog. Address Dept. C.

Michigan Show Case Co.
51-53 East Fort St. DETROIT, MICH.

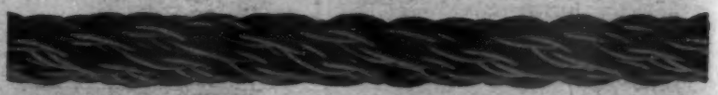
We have the best Pure Copper Cable

Lightning Rods

and fixtures on the market, and to prove what we say is right, we are willing to send any firm a sample outfit and they can look it over, and if it is not the best they have ever seen, and not satisfactory in every way, we want the whole shipment returned at our expense and it costs them nothing. We manufacture all our own goods and know just what they are, and we want every hardware dealer to write to us for prices and territory. We give a $500.00 guarantee and also one of our improved static machines.

WRITE TODAY TO
Maher & Son Lightning Rod Co., Preston, Iowa

"ELECTRA" PURE COPPER LIGHTNING RODS AND FIXTURES



NOTHING BETTER PRICES RIGHT WRITE US
To convince you we mean what we say, let us ship you an outfit upon approval. If you don't like it you may return it to us at our expense.
ELECTRA LIGHTNING ROD CO., 220-240 Market Street CRESCO, IOWA

WE want agents in every state in the Union to take subscriptions for THE AMERICAN ARTISAN. Agents can devote all or part time. Subscribers can make a nice little sum each week on the side by devoting their spare time to this work. Write for agents' terms. Sample copies sent upon request. Address, THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Ill.

See the Point?

A dealer who once starts selling

"Flyer" High Speed Washers

always writes back for more and with the request "I want the Exclusive Agency for my town.

Why is this?

No doubt you can guess the answer, but write us anyway, do it today.

H. F. BRAMMER MFG. CO.

DAVENPORT, IOWA

THE TAYLOR & BOGGIS FOUNDRY CO.

CLEVELAND, OHIO

Manufacturers of

Light Gray Iron Castings

BUILDERS' HARDWARE, DAMPERS AND DAMPER CLIPS, OIL AND GAS STOVES, FURNACE LAMPS, MOLASSES GATES, LETTER BOXES, HARDWARE SPECIALTIES.

Revolving Cases

for Bolts, screws, etc. SAVE TIME and MONEY

A necessity for Hardware Dealers, machine shops, pattern shops and in fact any one who handles small articles. Last indefinitely. Made octagonal or square as desired; also with blank drawer fronts with label holders. Descriptive booklet sent on application. Sold by all first class Hardware Dealers.

AMERICAN BOLT & SCREW CASE CO

Dayton, Ohio

You Are Invited to Take Notice of the

White Lily Motor Washer

¶ It will be a valuable addition to your line. ¶ This new Water Motor Machine is of standard **White Lily Quality** throughout. ¶ The motor is small and compact, but powerful. ¶ It is of the simplest construction, there being no springs in the cylinder, and only one in the piston. ¶ Wearing parts are all brass—Tubs of selected Louisiana cypress—Stave legs—Mahogany finish.

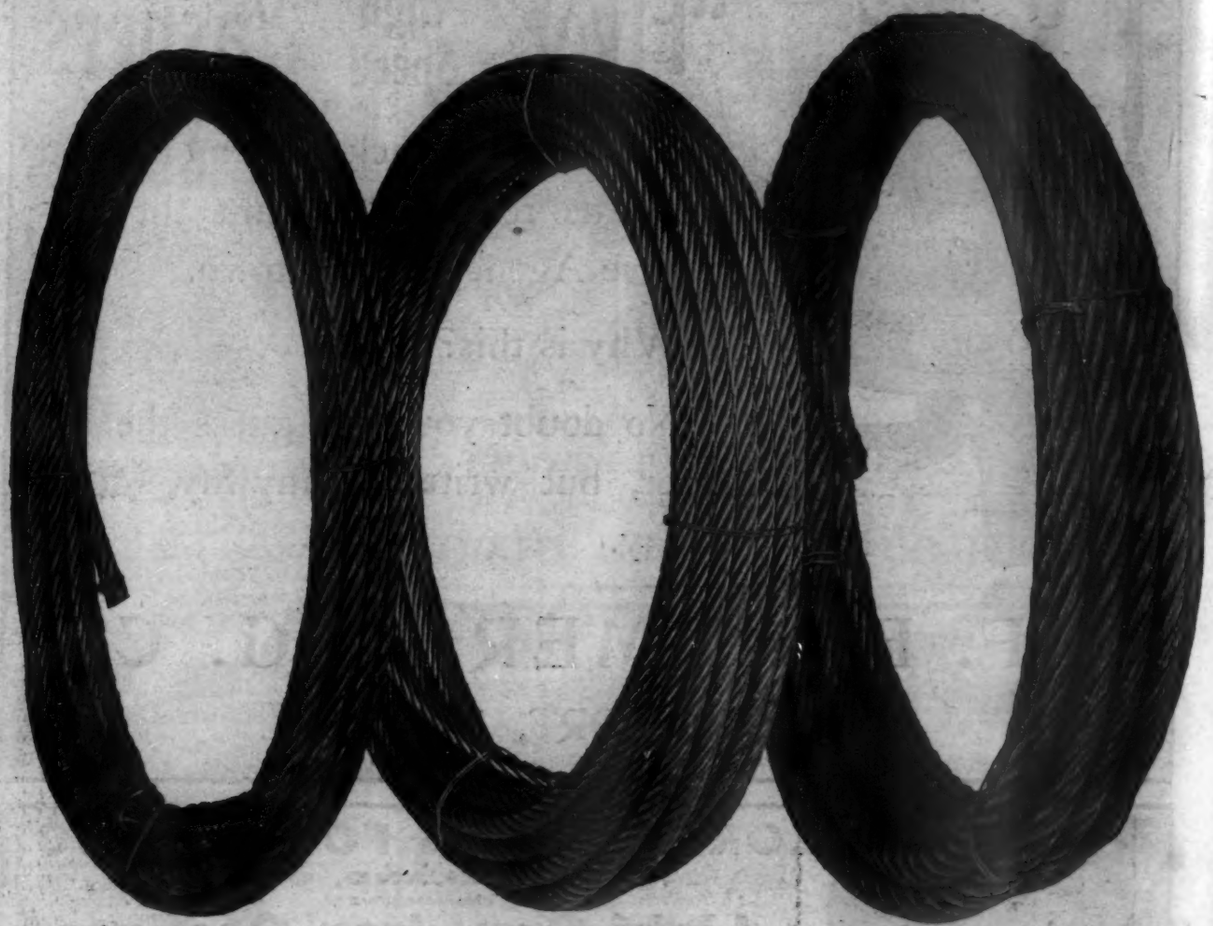
Operates on Very Low Pressure

WHITE LILY MFG. CO.

1500 Rockingham Road, Davenport, Iowa

Sold direct or through our distributers.

Large stocks carried at convenient points all over the country, ready for quick delivery in either short or long lengths, on reels or in coils.



72 Feet
¾-in. Crucible Cast Steel
Hoisting Rope

202 Feet
¾-in. Monitor Dredge
Rope, 6 x 19

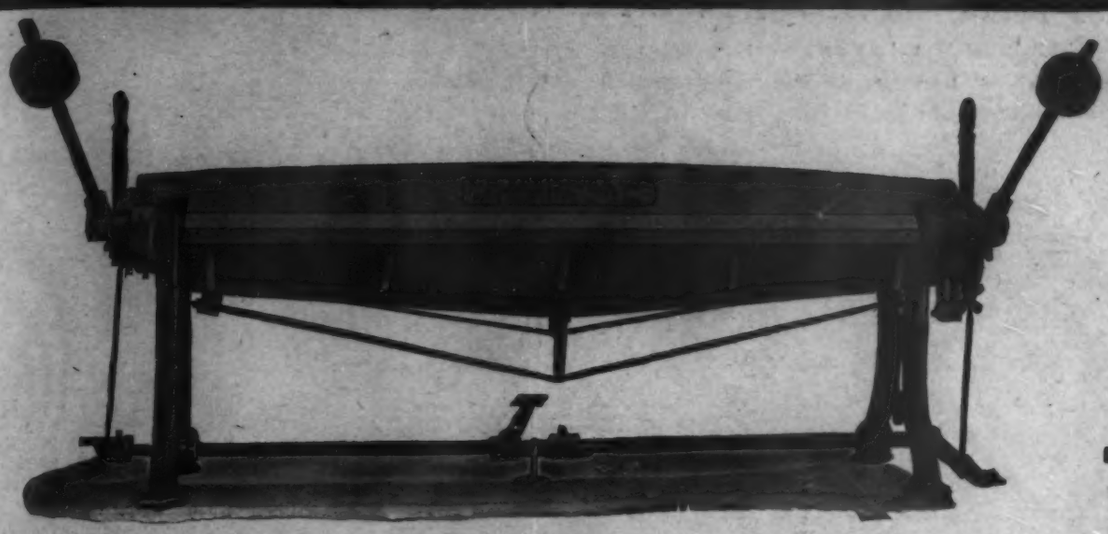
78 Feet
1-in. Plow Steel
Hoisting

American Dredge Rope

IN the great work of reclamation of the submerged lands of the Mississippi Valley there is no more active mechanical factor than our dredge rope. We make this rope with full knowledge gained from years of experience in the hard usage to which it is subjected, than which perhaps no other service can show an equal. There is not the same risk of life that goes with the operation of an elevator or a mine hoist, but there is greater wear, necessitating a very close study of the requisite quality of material and also experience in manufacture, to produce a flexible, reliable and durable dredge rope.

We offer our rope to dredgemen with assurance of the highest *uniform* quality and efficiency, as proven by the many years that it has now been successfully identified with this service.

American Steel & Wire Co. Chicago New York Worcester Denver San Francisco



The above cut shows the general design of our Cornice Brake. These Machines are guaranteed for No 20 Gauge material and lighter, and with Heavy Bending Attachment for No. 18 Gauge. With each brake is furnished 2½-inch, 2-inch, 1½-inch and 1¼-inch wood formers, and 1-inch, ⅞-inch and ¾-inch iron forms, also friction clamps for holding same. All machines are fitted with foot treadles, quadrant gauge and three quadrant stops.

WRITE FOR CIRCULAR.

The J. M. Robinson Mfg. Co.

SHEET METAL WORKING MACHINERY

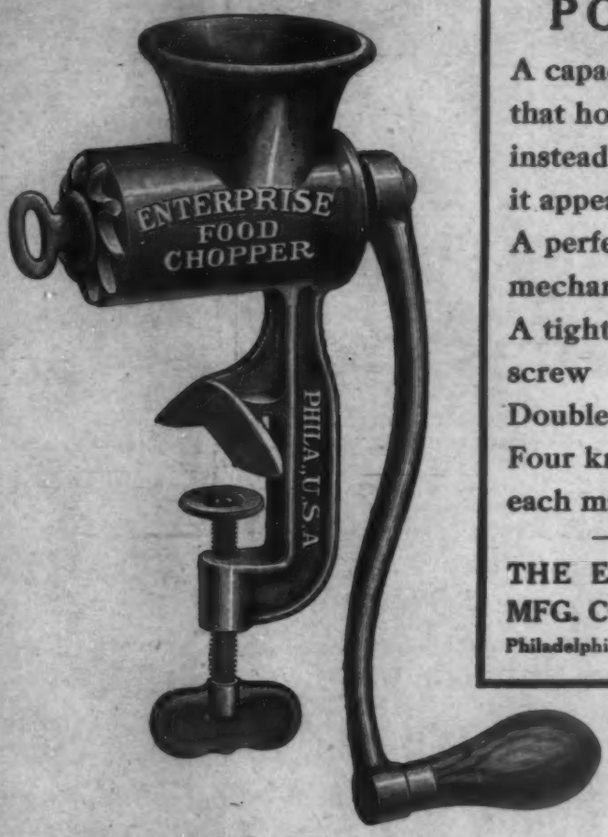
Spring Grove Avenue **Cincinnati, Ohio**

If you buy the right goods they will sell themselves—Particularly true of "**Enterprise**" **Food Choppers**

Best Made
Best Known
Best Liked
Best Advertised

This picture shows the graceful lines and strong simplicity of the

"ENTERPRISE"



POINTS

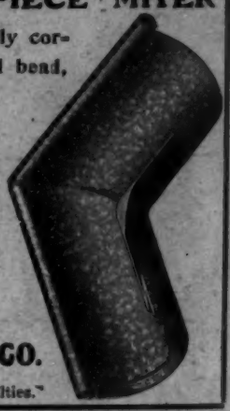
A capacious hopper that holds more, instead of less, than it appears to hold
A perfect cutting mechanism
A tight, true feed screw
Double tinned
Four knives with each machine

THE ENTERPRISE MFG. CO. OF PA.
Philadelphia, U. S. A.

FER. NOT ENT'D.

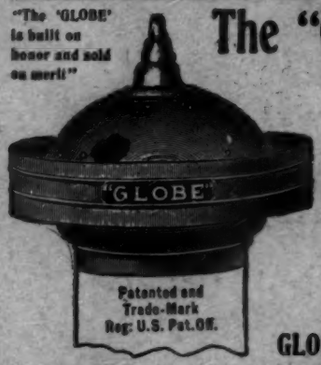
THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the



J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit"



The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Skylight purposes.

ABSOLUTELY STORM PROOF
For Perfectly Ventilating Schools, Churches, Halls, Mills, Factory and Audience Rooms of Every Character
SMOKY CHIMNEYS CURED
"GLOBE VENTILATED RIDGING".
Send for Pamphlet
MANUFACTURED BY
GLOBE VENTILATOR CO., Troy, N. Y.

The ECLIPSE Nested Stove Pipe Thimble

Saves 80 per cent of room.
Stronger than a hand-made riveted thimble.
Always Ready to hook together.
The Lug is always on top and passes through two slots then tied. Does not interfere with the entering stove pipe.

The ECLIPSE Nested Stove Pipe Thimble is made of Galvanized Iron in sizes of 5, 6 and 7 inch.
Manufacturers of Pieced Tinware and all Styles of Flour Sifters.
STUBER & KUCK, Peoria, Ill.

PURE HAMMERED OPEN HEARTH BASE
PURE PALM OIL
PURE LEAD
PURE TIN
PURE COATING on PURE SURFACE
and no destructive chemical agents between them makes

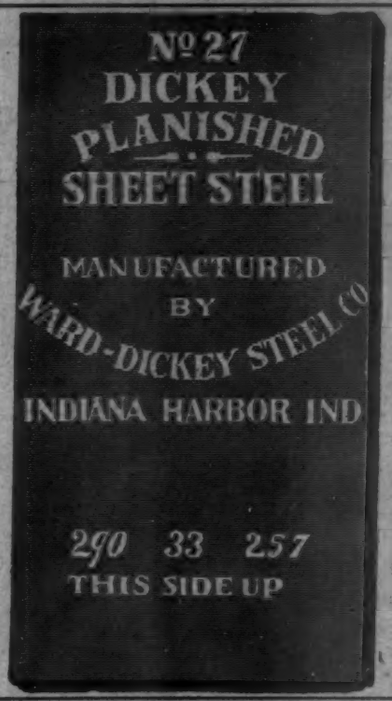
SCOTT'S EXTRA COATED

superior to all other

ROOFING TIN

ONLY American Manufacturers producing tin plates made with HAMMERED OPEN HEARTH BASE.

FOLLANSBEE BROTHERS CO.
PITTSBURGH



GENUINE HAMMER PLANISHED SHEETS

"Planished Sheets"

means **Hammer Finished** sheets.
Do not accept Roll finished substitutes when ordering "PLANISHED."
Insist upon the genuine articles in sheets, pipe, elbows and like goods.

A FAST SELLING ITEM

and one which leaves the dealer a good profit is our

BERLIN **KETTLE**

Made with tin or enameled cover.
Our line consists of over 500 fast selling items.

Like all our goods it is strictly first class and sells at a reasonable price.

WRITE FOR CATALOG.
Star ★ Enameling & Stamping Co., PITTSBURGH, PA.

This Space for Sale.
Inquire of Daniel Stern,
355 Dearborn St., Chicago

The W. J. BURTON Co.

DETROIT, MICH.
Manufacturers of
Fireproof Metal Windows
"Glazed with Wire Glass"
Made either Stationary, Pivoted or Sliding Sash.
Architectural Sheet Metal Work of All Kinds
in Ornamental and Fireproof Construction. Write for illustrated catalogue.

THE "CENTENNIAL"

RAIN - WATER CUT - OFF

The strongest, most durable and cheapest CUT-OFF on the market.
The only single cut-off made to fit Corrugated and plain pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.
Manufactured only by
The Sullivan-Geiger Co.
19 & 21 E. South Street, Indianapolis